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One good turn...

AT THE press conference in Bombay on May 31, when leading businessmen and industrial houses announced that they had resolved not to increase during the next seven months the prices of the products manufactured by them, an irreverent journalist asked whether this declaration had anything to do with the impending elections for several state assemblies. The insinuation, of course, was that, true to their form of trying to be on the right side of the ruling party, the industrialists concerned were merely trying to blow some wind into the sails of the Janata party in a politically significant context. There would of course be nothing to object to, even if the purpose of the businessmen who made the Bombay declaration was to do an act of political kindness to the party in power in the hope that such gestures of goodwill or more were not usually forgotten. Faith like this is generally not belied and, in fact, it is only such acts of faith which keep this imperfect world of ours going, however erratically.

The prime minister has seen in the Bombay declaration a response from the business community to his exhortation to it to observe a voluntary price freeze till such time as the government's anti-inflation programme begins to weigh in. Mr Morarji Desai, too, is, in his own way, a man of business and realises no doubt that the timing of the Bombay declaration may have as much to do with the forthcoming central budget as with the state elections. Perhaps more. One consequence of the presentation of this budget being postponed to the middle of this month is that it has given sufficient time to the concerned interests to make representations to the new government regarding fiscal policy or tax changes. This opportunity has on the whole been made good use of, not only in terms of immediate benefit to the business community, but also to the greater good of the country. The Finance minister has been flooded with suggestions for irrigating the national economy, parts of which certainly seem to be drought-prone areas. Mr H.M. Patel thus has had much swimming to do in all this abundance of water, reminding us of Hilaire Belloc's water beetle:

> "Should he ever stop to think
> Of how he does it, he would sink".

All the same it is both tempting and reasonable to assume that the Finance minister has in fact been able to do a lot of thinking, in which case he would have surely figured out certain priorities for fiscal policy which, hopefully, should be to the liking of the business leaders behind the Bombay declaration, now being endorsed in widening circles of business opinion. These priorities, again hopefully, will be the bringing down of manufacturing costs, the improved utilization of installed capacities in various industries and the revival of the capital market. Although these objectives could be separately stated for convenience of discussion, they are obviously interrelated. The fuller utilization of capacity for instance could be the cause and also the consequence of lowering production costs. Similarly, the more profitable utilization of existing capacity provides both the climate and the resources for expansion of capacity, which has direct relation also to the reinvigoration of the capital market.

The voluntary price freeze declared by the manufacturers could bring actual benefits to the consuming public only to the extent that the manufacturers, sincere themselves, are also able to provide some general surveillance over the distribution channels. The Bombay declaration has made it clear that the voluntary price freeze could only be held for a short period, the implication being that the government's anti-inflation policy should make effective use of the time thus gained to stabilize the price line by helping industry to cut costs and raise production. Thus a suggestion has been made very firmly and also most tactfully to the central government that it should produce a budget which will make sense of the voluntary price freeze. Consequently the central budget will be scrutinised in terms of how it proposes to help hold the price

line in a context of rising production and consumption.

The Finance minister could very considerably lessen his burden if he were to start, as he easily could, with the proposition that both direct and indirect taxation need to be brought down selectively for stimulating demand in economy, while still encouraging saving and investment. A host of suggestions has been made to him regarding reductions in direct taxation on individuals or companies or reliefs in respect of central excise duties. It may be granted at once that the Finance minister does not have revenue to throw away, but the government's basic policy of economising on public spending or outlays give him more scope for manoeuvre than his predecessors had.

cautionary tale

Meanwhile, Mr Patel may perhaps draw amusement and possibly instruction from what is essentially a cautionary tale published in the form of a short book review in a recent issue of *The Times* (London). Dr Barry Bracewell-Milnes, a former economic director of the Confederation of British Industry, now studying tax systems at Erasmus University, Rotterdam, has written a paper entilted "The State of Taxation". He challenges the notion that the tax avoider necessarily shifts a burden on to his fellow taxpayers. He argues that marginal losses of cash inflicted on the exchequer are not necessarily bad for the community since those losses may simply cause the government to spend less than it would otherwise do—a result which Dr Bracewell-Milnes apparently considers to be not too bad a thing. He points out that tax payment is not the only alternative to avoidance. The taxpayer may switch to another type of activity that would reduce rather than raise tax revenue. He says that avoidance, associated with a desire for self-enrichment, may increase economic activity and so benefit other taxpayers directly as well as by increasing the tax yield. While concluding that tax avoidance and evasion may be good for Britain, Dr Bracewell-Milnes recommends that the only way to reduce tax avoidance without causing people to work or save less is to reduce the highest rates of tax, especially those on investment income and capital transfers.

His paper, published by the Institute of Economic Affairs, is reported to have been welcomed by Lord Houghton of Sowerby, a Labour peer and former cabinet minister, who was secretary of the Inland Revenue Staff Federation from 1922 to 1960. Dr Bracewell-Milnes is perhaps less of an original thinker than he believes. At any rate there was a story circulating in this country years ago, which suggests that others besides him had tended to look at tax avoidance with a kindly eye. Prime minister Jawaharlal Nehru was visiting Washington, where he and the then president of the World Bank, Mr Eugene Black, fell to discussing that ever-green subject, the Indian economic situation. Mr Black reportedly asked whether the Indian government had a system of making state awards for patriotic citizens who had served their country well. On being told that such awards were being made, Mr Black suggested that it might not be a bad idea for the Indian government to give some of those awards to big tax evaders as, but for them, as Mr Black put it, Indian economic growth might not have been even what it was.

Patriotism has been identified with many things on many occasions and this journal is not going to pretend to be horrified when it happens to be identified with not rendering unto Ceasar all that Ceasar mistakenly believes to be his. The moral surely is that heavy taxation, particularly when it is wholly effective, could diminish economic activity to an extent which is not generally appreciated, especially among those who either impose it for political reasons or are not affected by it personally as taxpayers.

It has often been said that the Indian polity received the gift of universal franchise before its people were politically literate enough to make proper use of it. Whether this is true or not, the Indian economy has certainly been victimised by extravagant notions of taxing the people for their own good before the processes of its development could really cope with this persecution. It is beyond dispute that the steady acceleration of additional taxation over a period has been accompanied by increasing dependence on the part of the government on inflationary means of financing its expenditure, economic distress and social unrest among large sections of the population, rising costs and arrested trends of production, impoverishment of the capital market and widespread

Eastern Economist 30 Years Ago

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The development of general insurance business is proceeding at a slow pace in this country which is mainly attributable to the fact that adequate facilities for reinsurance arrangements for Indian companies do not at all exist. But this difficulty must be removed if Indian companies are to be enabled to participate in non-life business on a larger scale in the future. It is quite probable that foreign insurers doing business in India for considerable time past will exercise pressure on reinsuring companies abroad to withhold as far as possible reinsurance facilities to Indian companies in foreign countries in order to prevent them from accepting this type of business. The Sub-Committee, therefore, recommends that an Indian Reinsurance Corporation should be started either as a State-controlled or private institution. The financial commitments involved have not been worked out so as to indicate what burden is likely to be placed on the Government, nor has the suggestion of the Sub-Committee that amount of the War Risk Insurance Fund should be used for starting a nucleus fund for the corporation found unanimous support in the report. But it is surely up to the insurers themselves to work out the details of the scheme for setting up the corporation as a private enterprise. The Sub-Committee is not slow to point out in which direction insurers can take joint action to foster the development of the industry. It suggests that insurers should start investigation under the directions of actuaries into the actual experience of separate companies regarding mortality. The data so collected can be used for the compilation of a combined mortality table which may be used for improving methods of selection.

cynicism about growth prospects. This must be sufficient provocation surely for the government to ask itself whether the re-orientation of fiscal policies or attitudes has not become overdue.

The present administration at the centre must be relatively less inhibited from undertaking this review. Fortunately, it starts with the advantage that even the previous government was compelled to have second thoughts on the virtues of ever-increasing taxation by the compulsions of the economic situation in recent years. In this sense, Mr H.M. Patel is only being required to proceed further towards the light that has already been seen at the end of the tunnel. This being so, he could perhaps feel thankful for the wide range of the suggestions which have been before him with a view to assisting him in feeling his way. A freer economy is so very much a sensible part of a free society.

Sick no more

AT THE first meeting of the reconstituted Consultative Committee of Parliament concerned with the Commerce ministry held recently in the capital, the minister, Mr Mohan Dharia, is reported to have said that the central government would not take over any sick textile mill in future, but, it would act as a catalyst provided a state government came forward with a viable scheme for any particular unit. As a statement of policy, Mr Dharia's observations could have been more lucid. However, we welcome the implication that the present government has no great enthusiasm for sinking public funds in derelict or otherwise obsolete plants. Mr Dharia also said that a decision had been taken not to de-nationalise the mills already taken over by the government. This should not be the final word on the subject for it is clearly in the public interest that the government should be on the look-out for opportunities of handing over units for which there might be takers from private industry.

realistic approach

Indeed, a more realistic approach to the problem was indicated by the Finance minister, Mr H.M. Patel, who said at Ahmedabad on May 29, 1977 that those sick textile mills which could not be made viable should be allowed to die a natural death. This is undoubtedly a logical approach to a complex problem which has been handled differently hitherto. Afraid of the closure of sick units creating labour problems, the previous Congress government nationalised them and invested substantial capital in them in order to make them viable even though the expert view was to the contrary. The setting up of a new unit, according to experts, was preferable to the renovation of an old one which had been reduced to scrap. It was indeed unfortunate that the advice of experts had been ignored by the previous government resulting in the sinking of additional scarce financial resources in ventures of doubtful viability.

crisis in cotton textiles

That the cotton textile industry is currently in the midst of the worst crisis faced by it during the last 20 years, was stated by Mr Kasturbhai Lalbhai—one of our senior businessmen—recently at Bombay where he had invited leading industrialists to chalk out a programme for extending cooperation to the government in holding the price-line. It was, in response to the prime minister's appeal to maintain the price level that representatives of the leading industrial houses and major industrial units had voluntarily agreed to a "price freeze" till the end of the current year. However, not all the cotton textile units are in a position to honour this commitment. According to Mr Kasturbhai Lalbhai, out of 690 units in the country as many as 150 units are in the red. He has therefore argued that the price freeze cannot be made applicable to losing cotton textile units because it will lead to their eventual closure, causing not only loss in production but also increase in unemployment. Mr Kasturbhai Lalbhai has also cited the case of a textile unit which incurred a loss of more than three crores of rupees last year; such units surely cannot be bound down by a price restrictive measure.

moot question

The moot question is: Why do textile mills turn sick at all? A recent study made by the National Productivity Council* has analysed the problems currently facing this premier industry and has come to the conclusion that a number of factors have combined to put it in bad shape. Inefficient management of financial resources, flight of capital, dissipation of internal reserves and surplus, heavy borrowings and dividend policy unrelated to profitability are some of the maladies which have brought about ill-health to this industry. The cumulative effect of all these factors including intermittent power shortages and deteriorating employer-employee relations has been a sharp fall in the utilisation of the capacity of this industry. Over the last 18 years, this industry has not been able to utilise its installed capacity more than 75 per cent in the case of spindles and 68 per cent in the case of looms. The estimated output loss due to under-utilisation of capacity has been about 184 million kg of cotton yarn and 182 million kg of woven piecegoods per annum.

The two dominant factors which have done great damage during recent years are the shortage of cotton and the inefficient and technically obsolete stock of plant and machinery of textile units. The National Productivity Council has stated that "about 60 per cent of the total installed capacity is more than 30 years old and another 20 per cent is in the weak and marginal units. The impact of this inefficient and outdated plant and machinery on the cost of operations is anybody's guess. This has not only impaired the capacity of the industry to compete in the world market, but has also prevented it from supplying adequate woven goods at cheaper rates in the domesiic market. Even more important, it has reduced severely the profitability of the industry,

**Productivity Trends in Cotton Textile Industry in India*; published by National Productivity Council, New Delhi.

thereby reducing its capacity to generate reinvestible surpluses".

Regarding the indigenous supply of cotton it is well-known that this country's output has not kept pace with growing demand and the shortfall for the last many years has been covered through imports. Because cotton prices all over the world have risen, the government has in recent months been encouraging the mills to make use of man-made fibres such as viscose, polynosic and polyester fibres. While this is a welcome development leading to increased use of man-made fibres, it also assumes that the area under foodgrains will not be diverted to cotton. In other words, this country will remain dependent on imports of cot on or man-made fibres in order to cover the shortfall in this fibre.

sympathetic handling

The problems of the mills which are economically viab e but which find th m-selves in financial difficulties due to government's policies or oth rwise wi l need to be sym athetically tackled because an inordinately large number of textile units connot be allowed to fade out of existence. It is n cessary that the government should take su h measures as would help these viable but temporarily sick units to move on to the road of recovery.

The Indian Cotton Mills' Federation (ICMF) has categorised the sick mills in three broad groups. To the first group belongs such mills as are viable but which are facing difficulties arising out of the liquidity position consequent upon the costs having gone up. Since the credit limits in the case of such mills have been fixed for some time and have not been readjusted, these mills find themselves in financial straits. It is necessary that the commercial banks should assist them by revising the credit limits taking into account the current costs of production. The Tandon Committee norms about inventories and credits have also created problems for several textile units and it has been rightly suggested that these norms should not be made applicable to this group of cotton textile units.

The second group of mills includes units which are in a state of incipient sickness. These mills need to be helped with necessary finance for purchasing inputs in right quantity and in right time. They also need to be provided with the financial capability to carry stocks so as to prevent distress sales. The ICMF has suggested that loans to these mills should be granted up to at least 75 per cent of the total value of the old and new machines put together including lands and buildings. Such mills also require assistance of bill marketing facilities wherever they do not exist.

The third and the last category is of those mills which have incurred substantial losses in 1975 and 1976. Because of these losses, the banks are not coming forward with any financial assistance to them. The ICMF has suggested that a separate fund should be created by the government from which the working capital requirements should be made available to these mills by way of clean term loans at low rates of interest. The repayment of such loans, it is suggested, should be spread over a sufficiently long period to enable pay-back in annual instalments.

It is conceded that the government has adopted the right approach in refusing to take over the sick mills but it is essential that it should not completely shut its eyes to their current problems. In fact, it is time that a national textile policy was evolved which may ensure the welfare and progress of the industry as a whole. The Committee on Essential Commodities and Articles of Mass Consumption which was presided over by Mr Mohan Dharia in 1973 (he was the minister of Planning in the previous Congress government) had suggested that the essential mass consumption goods including cloth should be made available to the public on a continuous basis by ensuring reasonable stability in their sale prices. The report had indicated that the sale price of a consumer product should cover the essential costs but steps should be taken to bring it down to a reasonable level so that the consumer is not charged an excessively high price. The cotton textile industry can live up to the norms set by the Mohan Dharia committee only if essential financial help comes forth from development banks for the modernisation of machinery and from the commercial banks for the purchase of essential inputs so that financial stringency does not thwart their working results.

Indo-Swiss dairy project

A SYSTEMATIC introduction of exotic inheritance into local stock through bilateral projects on crossbreeding has proved to be an important measure for increasing milk production potential in this country. The projects seek to evolve crossbreeds of foreign high-yielding stock from the Indian cow, which through natural selection over centuries has developed many positive characteristics making it the most suitable and the best adapted animal for the prevailing environment. Several states have initiated crossbreeding projects with improved Jersey, Holstein, Red Dane and Brown Swiss breeds. The last of these has been selected for popularisation by the Indo-Swiss Dairy Project in Kerala.

Starting in the high ranges of Kerala in 1963, the Indo-Swiss project aimed at the creation of a new breed of cattle adapted to local conditions along with a systematic promotion of fodder production. The programme was extended in 1969-70 to the plains of Mavelikkara region of Alleppey district. The objective of the project was that the optimum proportion of foreign blood in the crossbred should be between 50 per cent and 75 per cent, because Brown Swiss has the qualities of heat tolerance, adaptability and draught power. These factors have enabled the successful introduction of this breed in tropical zones around the world.

A recent assessment of the economics of crossbred cattle undertaken by the National Dairy Research Institute, in the districts of Idukki and Alleppey of Kerala, where crossbred cattle have been provided to the people, has revealed that the gains in the productivity of milch cattle and in raising the economic status of cattle keepers in the area were substantial. The survey report has, however, added

that further extension of the experiment would largely depend on the determination and zeal with which a composite and integrated package comprising cattle breeding, fodder production, veterinary aid, milk marketing and credit would be taken to the rural population still untouched by the programme.

The profitability in the business of milk production depends upon the yield levels and the prevailing price of milk in the area. The profit bearing level for Brown Swiss crossbred cows starts with the production level of three to four litres in plains and one to two litres for settler farmers and tea garden labourers, who maintain their cows largely on green pastures. Below these levels of production, the business is a losing proposition.

economical use

The report reveals that the cost of animal feed to produce a litre of milk varies widely from Rs 1.21 in the plains to only Rs 0.15 with tea garden labourers in the extension areas. This shows that it is economical to produce milk where fodder is available rather than transport cattle to the places where milk is demanded. Net income per cow, however, is the highest with animals fed predominantly on farm grown roughage, which yields high marketable surplus of milk per cow.

The standards followed in the feeding of lactating cows have been far below the recommended levels in all the areas where the study was conducted. An alarming situation was discernible in the dry season when availability of dry feed fell to about 15 per cent of the requirement of Brown Swiss crossbred animals-in-milk belonging to tea garden labourers. Such a state of affairs might result in a decline in the milk production and much of the usefulness of crossbreeding might be lost.

It appears that the owners of crossbred cows take better care of their animals, including indigenous breeds, in comparison to the cattle owners in other areas. The Brown Swiss crossbred young stock is, of course, better tended than the young stock of other breeds. In other areas young stock is considerably underfed, the amount of dry feed availability being less than 50 per cent of the requirement. Underfeeding was particularly pronounced in young stock maintained by the tea garden labourers. This was reflected in delayed maturity and less than optimum productivity after attaining breedable age.

The annual net return per cow in the case of Brown Swiss crossbreds has been between Rs 575 and Rs 875 in the extension areas, while the return in other areas where such improved varieties have not been made avaieable ranges from an actual loss of Rs 60 in a year to a profit of Rs 400. In other words, the net gain has been positive and substantial in the case of cross breeds alone.

The regression coefficients calculated in the report conclusively prove that the unit increase in the availability of green fodder and concentrate results in greater increase in milk production in case of crossbred cows than in the case of indigenous breed. The cost-benefit analysis made in the report reveals that the entire project would recover its cost within 25 years with 10 per cent social rate of return. This, however, is a conservative assessment because the indirect benefits such as the shift of the house-holders from money lenders to institutional sources for funds to buy crossbred cows have not been taken into account.

Although the extension of improved varieties of cattle is a slow process, the gains of the project lead to the obvious conclusion that the service should be made available to more and more households. Now that the necessary infrastructure to extend the programme has been developed, the facility of crossbreeding should be made available in other districts in the state also to make dairy farming profitable for larger number of peasants and workers.

Indira Gandhi and Eastern Economist

To LISTEN to the prime minister's Republic Day broadcast was an interesting experience indeed. There was the appeal of the voice—fresh and feminine. Mrs Indira Gandhi, again, speaks English pleasantly. It was thus quite a treat to listen to her. It was also some fun. As she proceeded, the feeling gained on me that I was being read a neat little essay by a bright college girl. The theme of the essay, of course, was "What I would do if I were Jawaharlal Nehru's daughter and also the prime minister of India."

Naturally, when it was all over and that voice had faded away, my mind began to fuss a bit. Has the prime minister—I asked myself—a real and adequate appreciation of the complexity and urgency of the problems confronting her, the government and the country? It is true, no doubt, that Mrs Gandhi dutifully recounted the familiar issues—food, foreign exchange, good relations with Pakistan, peace on the frontiers and the like. But this reiteration of them was somehow not sufficient to satisfy me that she, in fact, saw them as priorities in policy-making. This was perhaps because her speech as a whole produced the effect that she was more interested in being the executrix of her father's Will and Testament than in acting in the context of the present and the perspective of the future. It is not going to be easy, I am afraid, for her to realise that the nation is not exactly waiting on her to perpetuate the Nehru legend or any other legend.

* *

To some extent, the circumstances in which she became prime minister are apt to confuse issues for Mrs Gandhi. It is true, of course, that the Congress president chose her because she was the daughter of her father, but it is just not true that this country has had to have her as prime minister as it can be governed only in the Nehru name. Mr Kamaraj was desperately in need of a candidate who was not only sure to defeat Mr Morarji Desai but who could be acceptable as a compromise or act as a damper to soaring ambitions in his own camp or around it. To put it bluntly, the Congress president had concluded that it was safer to ask the Congress parliamentary party to vote for an image rather than an individual. In fairness to Mr Kamaraj, it must be said that he seems to have few other interests in his political life than to ensure that the Congress continues in power and remains the dominating ruling party that it is today.

From **"The Moving Finger Writes"** of February 4, 1966.

In the past, the party had dominated the electorate to the extent it had done only partly by virtue of its policies or programmes, but largely on the strength of its historic role in the freedom struggle, the charisma of Jawaharlal Nehru and the vague suggestion of identity with village India which the party's election symbol, the yoked pair of bullocks, managed to convey. With the next general election only some months away and its glamour dulled by long years of coarsening office, the Congress party is obviously in need of learning new tricks or tactics for the coming battle of the ballot.

The electorate is being swamped by the new generation which is more interested in what me make of Independence than in the fact of Independence itself. So long as Jawaharlal Nehru was there to cast his spell, it was possible for the ruling party to make the pie in the sky appear more solid and substantial than the bird in the hand. Nehru has gone but the Congress leadership still has need of the Nehru magic; and so Mr Kamaraj has decided that the Nehru name should be the election symbol, although the bullocks may continue to be registered with the Election Commissioner. The danger in all this, of course, is that the relentless men who are in possession of the party machine may exploit the prime minister's name and personality to do their demagogic damnedest. In the circumstances, it becomes the moral duty of the prime minister to prevent her position being thus misused.

The question is whether Mrs Indira Gandhi may not encourage, even if unwittingly, the demagogic use of her name and position. For instance, one of her first acts on becoming prime minister was to announce that she had directed that adequate food supplies be rushed to Kerala and that she also intended to visit the state as soon as possible. Now, while the rushing of food supplies to the stricken state is certainly a sensible act which, incidentally falls within the routine of administration, I fail to see the point of Mrs Gandhi wanting to rush there too. It would be more useful if she could use her influence to persuade surplus states to spare more rice more quickly for the benefit of the people of Kerala. Her visiting Trivandrum, with all its VIP ceremonials, could only be a distraction to an administration, the preoccupation of which ought to be with the efficient distribution of available food supplies. It may be contended, of course, that Mrs Gandhi's presence in Kerala would boost the morale of the people, but, surely, some more well provisioned fair-price shops could be more relevant to relieving their hunger.

The food problem, in fact, should be managed with a minimum of sentiment but with the utmost organisational efficiency. I am afraid that there is too much disposition in our midst for one to wear one's heart on one's sleeves. The prime minister, for instance, made a point in her broadcast of the government's anxiety that the nutrition of mothers and children in areas deficit in foodgrains should not be allowed to suffer. This is an esteemable sentiment, but frankly, does Mrs Gandhi really believe that the government's rationing arrangements are capable of such delicate refinements? In any case, the people concerned, including mothers and children, would consider themselves blessed if they could get regular supplies at reasonable prices of basic foodgrains, neither too meagre in quantity nor too excessively adulterated....Let us by all means talk about the nutrition of mothers and children, but let us start doing so after we have seen to it that the government succeeds in managing a basic 12-oz. ration for people made to or having to depend wholly on government controlled distribution of foodgrains.

(Extract from the column by V.B.)

CAPITAL'S CORRIDORS

R. C. Ummat

Foodgrains stocks • Interest rates

EVEN THOUGH this year's procurement of wheat and other rabi foodgrains may not exceed 75 per cent of the approximately six million tonnes procured last year, the union government is understood to be exploring ways and means of lightening the burden of the accumulated food stocks.

Till the end of last week, about 3.4 million tonnes of rabi grains, mostly wheat, had been procured as against approximately 4.5 million tonnes up to that period last year. This, of course, is not surprising because of two reasons. First, the crop this year has been lower and the untimely rains in the first ten days of May not only affected threshing operations but also market arrivals. Second, the private trade has been allowed to purchase this year much larger quantities of foodgrains than had been the case last year. Moreover, all restrictions on the movement of rabi grains have been removed with the result that these grains can be transported without any hindrance even on private account to any part of the country.

storage problem

The anxiety of the government to bring down to some extent the accumulated stocks – currently said to aggregate to around 21 million tonnes: an overwhelming proportion in the form of wheat—is not unwarranted. The permanent storage available with the government can accommodate just 12/13 million tonnes. Large quantities of grains, even from the last year's crop, therefore, are still lying in the open in covered and plinth (CAP) storage. There is a serious danger of this stock deteriorating fast and even being damaged with the onset of the monsoon season. Part of this year's procurement also has been of rain-affected wheat.

The cost of maintaining such huge stocks has its implications for the economy in the sense that large funds have been locked up in it. This incidentally is one of the principle reasons responsible for the expansion in the money supply with the public. With the easier availability of foodgrains in the open market at prices around or not much above the procurement prices, the off-take from the fair-price shops, particularly of wheat, has been going down progressively. The monthly releases from the stocks, including the quantities supplied to flour mills, do not exceed half a million tonnes. The recycling of the stocks, thus, is becoming an arduous task.

three proposals

Three proposals are understood to be under the consideration of the government to bring down the stocks within manageable levels. First, the government is anxious to repay the USSR wheat loan which was received two years ago when the country faced a critical food situation. About one-fourth of this loan has already been discharged through the sale of other commodities to the Soviet Union. But still 1.5 million tonnes loan has to be repaid. The second proposal envisages reduction of the issue price of wheat for sale through fair-price shops by Rs 10 per quintal so that the off-take from these shops can be stimulated. The third proposal is to export wheat products to the west Asian and some other countries which have large populations of Indian origin.

A team from the Soviet Union is expected here shortly to hold discussions with the government of India on the repayment of the wheat loan. Earlier it was envisaged that half of this loan would be paid back in wheat of comparable quality and the other half in the form of exports of other Indian products. The government now appears to be desiring that the Soviet Union should take the remaining 1.5 million tonnes in the form of wheat itself. One important point that is expected to crop up in this connection is that the Indian wheat being softer than the wheat received by us under the Soviet loan, will not be strictly of the same quality as that loaned to us. We, of course, do have imported wheat in storage, but it belongs to the last year's crop.

amicable settlement

It remains to be seen whether the proposal will be acceptable to the Soviet Union. If the forthcoming talks materialise in the shipment of some wheat to the Soviet Union, the accumulated stocks would get reduced to that extent. An amicable settlement of the issue perhaps may have to be found in some adjustment in the price of our wheat allowing for the difference in its quality and that of the wheat got on loan. There, however, should be some imported wheat available in the silos. The Soviet Union should not have any objection to taking that in discharge of its loan as silo storage can maintain the quality of wheat for nearly two years.

A cut in the issue price of wheat for supplies to fair-price shops, indeed, can be expected to stimulate off-take of stocks with the government. But this will push up the central subsidy on foodgrains very markedly. This proposal, therefore ,has to be considered by the government very carefully. The increase of Rs 5 per quintal in the procurement price of wheat this year has already increased this burden quite significantly as the issue price even at the last year's procurement price did not fully cover the maintenance cost of the procured wheat plus the purchase price.

Besides, another factor that needs serious consideration is that even though the open market prices in several parts of the country currently compare favourably with the prices of wheat issued to the fair-price shops, taking into consideration, of course, the quality of the grains, there is every likelihood of the open

market prices hardening after the arrivals in the market subside in the next few weeks. The behaviour of prices of farm products in the past whenever the private trade has had some role to play, pertinently suggests that the attempt of the traders is to keep the prices depressed in the immediate post-harvest period and to push them up when the major portion of the marketable surplus is disposed of by the farming community.

In view of the large stocks available with the government, this tendency may not be as pronounced this year as it has been in the years gone by, but there can be no doubt that wheat prices in the open market will start rising from the next month onwards. If proper care can be taken of the CAP-stored wheat for another couple of months, the increase in off-take of wheat from fair-price shops, which cannot be ruled out, can help in obviating a sharp increase in the central subsidy on foodgrains. There, of course, is good scope of pumping in governmental stocks in the open market through traders in the deficit states such as Maharashtra where the open market prices even currently are considerably higher than those at the fair-price shops.

Jha proposal

The proposal put forth by Mr L.K. Jha as well as this writer last year for the utilisation of at least part of the accumulated stocks of foodgrains for stimulating development activities in the rural areas also deserves serious consideration by the government for part of the wages of those employed on these works—which may include building up of roads, irrigation canals and channels, etc.—can be paid in kind. The present government is committed to fostering such activities with a view to providing additional employment opportunities.

The exploration of the possibility of exporting wheat products is a step in the right direction. Besides reducing stocks, it will help in better utilisation of the capacity available with the flour mills. The foreign exchange realisation from such exports should also be higher than of direct wheat exports which, incidentally, may not be possible on a significant scale because of the implications in respect of the food aid we might be needing in the future should our production suffer for one reason or the other.

The proposal put forth to the FAO recently that it could draw upon our accumulated stocks for its aid programmes to the developing countries on the understanding that the quantities thus utilised will be replaced when we need them needs to be pursued vigorously.

* *

The scaling down last month of the celling on the interest rates on loans of commercial banks repayable in not less than three years from 14/15 per cent to 12.5 per cent is reported to have induced some thinking on the part of the term-lending financial institutions in respect of their lending rates. These institutions are charging interest ranging from 9.25 per cent to 11.5 per cent on their loans depending upon the location of the industrial units, the lower rate being applicable to the units proposed to be set up in the notified backward areas.

With the lowering of the ceiling on the interest on bank advances, the spread between the interest on these credits and that on the loans made available by the term-lending institutions has narrowed down to just about one per cent. If the capital costs of industry have to be brought down, as is aimed at by the last month's departure from the dear money policy, some cut in the interest on the loans of term-lending institutions obviously is warranted.

The Life Insurance Corporation also needs to bestow thought on the interest charged by it on the credits extended to policy-holders, especially for house-building purposes. As the bank rate has not been brought down as yet, technically the LIC is not required to reduce its interest on these credits. This apart, there is a case for a cut in the LIC interest charges not only owing to the reversal of the dear money policy—though only to a limited extent—but also on the consideration that the house-building activity has to be fostered.

The union ministry of Works and Housing is understood to be exploring the ways and means of bringing down land costs, particularly in the metropolitan areas. Efforts are also envisaged to be made in the near future on developing small towns to reduce the immigration pressure on large cities. The house construction activity has to be accelerated not only to relieve the housing shortage in the country but also to open up employment opportunities. A step-up in the house-building activity can further have a very salutary effect on many industries.

The current rate of interest charged by the LIC on house-building loans to policy-holders under the mortgage scheme is as high as 11.5 per cent and only slightly lower under the "Own Your House" scheme. These rates were put up by two percentage points following the raise in the bank rate to the corresponding extent in 1974 as an anti-inflationary measure, simultaneously with which the lending rates as well as the interest rates on deposits of commercial banks were revised upwards very significantly.

Now that both the interest payable by banks on deposits and the ceiling on the interest chargeable on medium-term advances by banks have been reduced, there is ample justification for the lowering of the LIC interest also on loans to policy-holders for house-building purposes. It may be stressed that the LIC interest on the above loans is significantly higher than that on the loans to state governments and housing boards on the consideration that these loans are made available for social purposes for financing housing programmes for the less affluent. The LIC apparently has some obligation to its policy-holders also whose assets are pledged to it against house-building loans to twice, in some cases even thrice, the amounts loaned out.

BHEL : making good in a difficult field

R. C. Ummat

Bharat Heavy Electricals Ltd (BHEL) is doing well. The progress in this public sector enterprise has been accelerated in recent years. An ambitious Research and Development programme has been taken in hand. Possibilities are being studied for manufacturing 500/750 mw power generation sets. Test projects on solar energy and more efficient use of low grade coal in power generation are being put up. BHEL can now provide equipment for power generation requirements of the country in full.

THE RECENT elevation of Mr V. Krishnamurthy to the secretaryship in the department of Heavy Industry in the ministry of Industry from the chairmanship and managing directorship of Bharat Heavy Electricals Limited (BHEL) recognises the merit of the man and the progress of the organization he has headed so ably. I had an opportunity of revisiting the various units of BHEL a few days ago after about three years. The progress made by this undertaking during these three years has indeed been remarkable.

The BHEL never was—and is not now—anything but a difficult engineering and managerial job. The mastering of the intricacies of the manufacture of heavy electricals on borrowed technology was not an easy task for a developing country such as ours. The first few years, therefore, could record only a limping effort on several shop floors. But once the manufacturing techniques were mastered by our young technicians, the progress got accelerated a great deal and the process of stabilisation of production at progressively higher levels, which marked the second stage of the development of the enterprise, came to be undertaken about the turn of the current decade. This was abundantly clear in my 1974 visit to the manufacturing units of BHEL. This second phase too has progressed well and now the third and the final phase of development has been undertaken. Under this phase, research and development efforts have come to occupy pride of place. Endeavours at raising production, however, are not being relaxed.

The research and development efforts have been organized over the last two years. An ambitious programme has been launched for setting up at Hyderabad a complex of 12 laboratories and a documentation centre at a cost of nearly Rs 16 crores to provide a further fillip to these efforts in the coming years. The establishment of these laboratories, however, has not been thought of in isolation of the facilities already available in the national laboratories and research institutes. The facilities to be created at Hyderabad will be supplementing the existing facilities in the country and will be specially catering for the requirements of the heavy electricals manufacturing industry.

The Hyderabad complex will look after

POINT OF VIEW

the requirements of practically every aspect of the manufacture of heavy electricals. A very gratifying feature of the project is that it has been conceived and is being executed by BHEL on its own without assistance from abroad. Some consultations with foreign research institutes that are envisaged to be resorted to will involve an expenditure of only a couple of lakhs of rupees. All efforts are also being made to equip these laboratories with the equipment available indigenously. A substantial portion of the equipment is proposed to be fabricated by BHEL itself. The imported equipment will form not more than 60 per cent of the total equipment cost of nearly Rs 13 crores out of the above Rs 16 crores aggregate investment to be made in the complex. Six of the above 13 facilities are expected to be commissioned by the end of 1978-79, involving an expenditure of Rs 5 crores. The remaining laboratories will be set up in the early years of the sixth Plan.

A good deal of R&D effort has already been initiated at the various constituents of BHEL at Hardwar, Bhopal, Ramachandrapuram and Tiruchi relating to the specialisation of these units—turbine and generator research at Bhopal and Hardwar, boiler research at Tiruchi, research in transformers and switchgears at Bhopal and Ramachandrapuram and in various other fields at Ramachandrapuram. The newly set-up transformers unit at Jhansi will also undertake research in this line of manufacture, particularly instrument and special transformers. The R&D effort in insulating technology and control equipment, similarly, is being taken up at Mysore Porcelains as also the Radio and Electricals Manufacturing Company (REMCO) at Bangalore, the two recent acquisitions of BHEL.

coordinating work

While this research work is proposed to be continued undisturbed, the coordinating work is now being undertaken by the corporate research and development centre set up about 3½ years ago at Hyderabad. Another division has been established in New Delhi to initiate research in energy systems and new products. The New Delhi division and the Hyderabad centre are keeping close liaison with each other and have demarcated specific fields of activity between them so that the R&D efforts not only being undertaken by them but also at the manufacturing units are fully coordinated.

The R & D efforts have two prongs—product development and new energy systems. Product development is aimed at improving the performance of the equipment manufactured, reducing its costs and cycle of production, redesigning of equipment to suit the changing require-

ments of the country as well as of exports, standardisation of parts and components, improvement of the materials used, import substitution in the materials fields, etc. Quite significant progress has been registered in this sphere during the last two years. Some of the important achievements in the product development sphere are manufacture of mica paper on a pilot scale, development of insulating oil based on castor oil, development of circuit-breakers upto 1,500 kvA, designing of 245 kV oil impregnated paper bushings, slow-speed high torque mill motors, 200 kvAr 11 kV capacitors, electric pump control relay, surge capacitors, electrics for oil rigs, traction machines and controls for trolly buses, etc.

The most significant programme undertaken in regard to product development, however, is the study of the possibilities of manufacturing three or four years hence 500/750 MW power generation sets. Some assistance in this sphere, of course, has been obtained from KWU of West Germany. Preparatory work on 500/750 MW turbines and generators has already been initiated to study the parameters of the tasks involved. The research in respect of the boilers needed for these giant thermal stations has been practically completed.

support to BARC

The BHEL is also lending good support under this programme to the Bhabha Atomic Research Centre (BARC) in the manufacture of equipment for nuclear power stations. Significant strides have been made on this front, including the designing of equipment for fast breeder reactors.

Of much greater significance, however, are the R&D efforts being made under the guidance of the New Delhi division in new energy systems. In line with the policy of the government, envisaging coal as the primary source of energy available in the country, three important projects have been undertaken at Tiruchi. With a view to efficiently making use of low grade coal having 40 to 45 per cent ash content, a pilot project was started early this year to design a fluidised bed boiler. Estimated to cost Rs 80 lakhs, this R&D scheme is expected to be completed by the end of December. It is hoped to put in the market from next year boilers of 15 tonnes per hour capacity for various industries using very low grade coal. It is envisaged to go in for power boilers of this type in the near future. Similar experiments are stated to be conducted in Japan and the United Kingdom. The US collaborator, Combustion Engineering, from whom BHEL received boiler technology to update its techniques a few years ago, however, has shown interest in entering into technical collaboration with the Tiruchi unit for the production of fluidised bed boilers.

thermal project

The second major project that has been undertaken at the Tiruchi aims at increasing the efficiency of the present thermal projects from 36/38 per cent to 43/45 per cent. Known as the combined cycle demonstration plant, this project is estimated to cost Rs 6.5 crores and is anticipated to yield results in about three years. The increase in the efficiency of the existing thermal power stations will help in reducing the consumption of coal. The coal reserves of the country, thus can be made to last longer.

The most important research project undertaken in the sphere of new energy systems R&D, however, is the third programme undertaken at Tiruchi. This is known as magneto hydro dynamics system of energy development (MHD). A pilot plant based on this system is stated to be in operation in the USSR, but the Tiruchi project will be different from the USSR one in that whereas the USSR project is based on natural gas, the Tiruchi scheme will be based on coal. The project envisages the conversion of coal into gas in the first stage for direct generation of electric energy by heating the gas to over 2500°C and the use of the gas subsequently to produce power through the conventional method. Estimated to cost Rs 11.67 crores, this programme has been undertaken by BHEL in collaboration with BARC and the department of science and technology. It is to be completed over a period of five years. While BHEL has been entrusted with the task of coal gasification and the manufacture of boiler and combustion chamber, the BARC will be looking after the job of supplying the electrical and magnetic parts.

A good deal of progress has been made by BHEL in harnessing solar energy also. The first solar energy pilot project of 10 kw is expected to be commissioned at Madras by the end of this year to try out the economics of this power. Two immediate possibilities of the utilisation of solar energy are considered to be in cold storage plants and large hotels. In fact, an agreement has been signed with the Ashoka Hotel in New Delhi for installing indigenously developed solar energy collector plants for heating water. It is expected that this will result in reducing the power requirements of Ashoka Hotel hy about 40 per cent and that too at highly competitive costs. The use of solar energy for meeting the hot water requirements of hospitals and other such establishmen s is also being considered.

The significance of harnessing solar energy for productive purposes, however, lies in its application in the remote areas of the country, particularly the hilly areas, in the case of which the laying of long transmission lines is highly uneconomic. Once the commercial viability of the Madras pilot piant is established, BHEL hopes to develop larger plants for commercial use.

power from canals

Yet another interesting possibility of generating power on a small scale which is being considered is the manufacture and use of small turbines to produce power from the run of canals. Nearly 350 MW electricity potential is estimated to be wasted at present in the run of canals. The harnessing of this potential is not expected to pose any insoluble problems.

The BHEL is also experimenting with generation of power from high velocity winds. Two wind mills on an experimental basis, one vertical and the other horizontal, have been developed by the research and development centre at Hyderabad. The cost per KW of power generation from wind currently, however, is estimated to be somewhat higher than that of electricity generation from geophysical materials. But the economics of this

energy also is similar to that of solar power. Wind mills can be installed in the remote areas, either nearer the shores or other places where the velocity of wind is substantial. If the commercial viability of wind mills is established, BHEL will manufacture the electrical portions of the equipment, while the remaining parts including the structure and the blades, may be handed over to the small-scale industries for production. The use of wind energy, however, is considered to be much more limited than of solar energy. Some work is understood to have been undertaken in regard to tidal energy also.

solar energy

In the context of the emphasis being placed by the Janata government on the development of small-scale, cottage and rural industries, the solar and wind energy obviously will be having great scope for application. But even more important than this are the plans of BHEL to make available small energy packets for the rural areas in the next few years. A notable contribution has been made by BHEL in designing and developing the gobar gas plant as well, incorporating such facilities as will optimise the production of gas from these plants for use in the rural areas. A prototype has been manufactured and installed for field trials in a small village near Hyderabad where it is being used for cooking purposes for providing mid-day meals to school children.

During the last few years, BHEL management has endeavoured to meet the four-point attack on its performance which had been there at the turn of the current decade. The undertaking came in for scathing criticism at that time for its high production costs, delays in deliveries, recurring losses and difficult industrial relations, particularly at the Bhopal unit.

Thanks to the efforts made in the last four or five years, the operations of BHEL have undergone a sea-change. The delivery periods currently quoted compare very favourably with the international standards. The state electricity boards are being assured of equipment deliveries within 42 months for putting up 200/210 MW power stations. In the case of one such power project in Maharashtra, efforts are being made even to deliver equipment within a period of 36 months. This compares with nearly 5/5.5-year delivery period quoted in the beginning of the current decade and also a delivery period of four years usually quoted by equipment manufacturers abroad. In the case of some equipment such as transformers, the period of delivery quoted currently is just about half of what is used to be about five or six years ago.

The production costs have been contained over the years to the extent possible and the increases effected in the sale prices have been by and large only of the order of the escalation in material costs. The increased labour and overhead costs have been more or less absorbed by the undertaking through improvements in productivity. The production cost of most of the items currently being manufactured by BHEL plants compare favourably with the landed costs of such equipments of foreign origin. The prices of boilers are being quoted even lower than the c.i.f. costs. A clear evidence of this is available from the fact that BHEL has been able to book several orders for boiler supplies to the World Bank-aided fertilizer plants in the face of stiff international competition.

cascading excise

In the case of some items, the sale prices of products may be slightly higher than the international prices, but allowance in such cases has to be made for the cascading effect of excise duties on materials and bought-out components.

As regards the losses incurred by BHEL in the early years, while it would be uncharitable to attribute all those losses to lags on the part of the management, because fairly substantial losses were indicated in the project reports of the various units themselves due to the fact that the scale of production as well as the manufacturing skills would take time to develop to the optimum levels, it is a matter of satisfaction that BHEL wiped out all its accumulated losses by the end of 1975-76 and had earned by then a net after-tax profit of Rs 6 crores. By the end of March 31 this year, the profit after tax is expected to go up to Rs 33/34 crores. The pre-tax profit earned last year is understood to have been in the neighbourhood of Rs 60 crores. The BHEL has also built up development rebate reserve to permissible level of Rs 30 crores.

Labour unrest, which afflicted some of the units of BHEL, particularly the Bhopal unit, till about five years ago, has yielded place to cordial industrial relations. The mandays lost due to labour trouble not only during the emergency but also in the past four or five years have been negligible. This is despite the fact that during these years the management undertook a massive reorganisation programme which entailed rationalisation of the wage structures also.

joint committees

An interesting experiment in industrial relations which BHEL has done is inviting the all-India trade union leaders to the joint committee meetings of the management and the plant-wise trade union leaders at the corporate office. The national leaders are stated to have acted as a bridge between the management and plant level union leaders at these meetings.

The BHEL has been taking a good deal of care to keep its various plants in trim through modernisation. The most significant example of this is available at the Ramachandrapuram unit. Originally envisaged to produce for utilities steam driven turbo generating sets of 60 and 110 MW capacity and associated power house equipment like pumps, heaters, condensers, etc., this plant has been almost completely revamped as a sequel to the decline in the demand for these sets and equipment. Its product pattern has been greatly diversified through modernisation and installation of some balancing equipment to include the manufacture of such new items as industrial power generating sets of 1.5 MW capacity and upwards, high pressure centrifugal compressors for such industries as fertilizers, chemicals, etc., high speed turbines to drive compressors, coal pulverising mills, heavy duty electrical motors, nuclear components, exhausters and fans, synchronous condensers and oil rigs. The first onshore oil rig has already been produced.

The production pattern at Bhopal, similarly, has been diversified to include 235 MW nuclear turbines, electrics for oils rigs, traction machines and controls

for trolly buses, higher range generator transformers, 750 kw generator for naval frigates, large vertical motors, thyristor chopper controller for half-a-tonne battery powered vehicles, etc. The Jhansi transformers unit has taken up the production of instrument transformers as well as special transformers. The Tiruchi unit has started producing besides power boilers, utility boilers and furnace safeguard supervisory systems. It has received an order for the production of a stoker fired design boiler. Christmas tree valves, mud manifold valves and full bore valves essentially for oil wells and high alloy steel valves for the petroleum industry have been successfully developed. Their production is being taken up. The story of the Hardwar unit is no different. This plant has produced generators for 235 MW nuclear stations

A major gap in its activities was filled in by the recent taking over by BHEL of Mysore Porcelains and REMCO at Bangalore, two Karnataka state government joint sector enterprises. While the former will meet the requirements of insulating materials of the Bhopal, Jhansi and Hyderabad units, the latter will expand BHEL's manufacturing activities to produce, among other things, power electronics equipment. The equipment envisaged to be produced here includes thyristor convertors, static excitation equipment and power station electronics, bypass value controls, high power semi-conductor devices, power factor capacitors, etc. REMCO is ultimately expected to become one of the largest power electronics complex for catering for the demands of the control equipments for basic industries in the core sector and power generation, besides general industries.

foundry forge plant

With a view to substituting material imports, BHEL is also setting up a central foundry and forge plant at Hardwar and a seamless tube plant at Tiruchi. The savings in foreign exchange expected when these two projects go in'o full production will be nearly Rs 63 crores per annum. The two projects will as well ensure timely availability of ma'erials to the equipment manufacturing units which, in turn, should not only streamline their production programmes but also help in containing manufacturing costs. The foundry/forge plant has already been commissioned partly. It is expected to be completed by August—three months ahead of schedule—at a cost well within the original estimate of Rs 34.2 crores. The seamless tube project, which will be turning out such tubes of sizes 14 mm to 150 mm outer diameter with a maximum wall thickness of 12.5 mm, was sanctioned in April last year to be commissioned in 42 months at an estimated cost of about Rs 55 crores.

The emphasis during the recent past has been on the manufacture of high quality equipment. Quality assurances are now being provided by BHEL to its customers. With a view to concentrating on specialised jobs, the various units of BHEL are increasingly off-loading to the extent possible simpler and routine types of jobs to ancillary units in their neighbourhood. This emphasis as well as increased productivity is reflected in the yearly increasing addition to value of production per person employed. The increase, for example, has been from Rs 28,750 to Rs 45,820 at Ramachandrapuram, and from Rs 38,221 to Rs 62,452 at Bhopal between 1973-74 and 1976-77.

quality of equipment

The quality acceptance of BHEL products is evident from the export orders which the undertaking received in the recent past. These include exports of boilers to Malaysia, hydro-generators to New Zealand and setting up of a thermal power station in Libya. The Bhopal unit is exporting its products to nearly 30 countries at present. With a view to competing in foreign markets more sucessfully, the R&D centre at Hyderabad has gone in for "appearance engineering" also which gives attractive looks to BHEL's exportable equipment in line with the global trends. The BHEL aims at exporting at least 20 per cent of its annual turnover.

The BHEL has also established a division for setting up complete power stations. This division is establishing a number of turnkey projects in various parts of the country and also the project contracted in Libya. Thus, BHEL has emerged during the past 15 years as an undertaking which can cater for the power generation requirements of the country in full—right from the manufacture of equipment to its commissioning for the customers.

The management and financial technique of BHEL too have been streamlined a great deal in the last few years. The approach is achievement oriented.

The gross output of BHEL has been progressing well during the recent years. It has grown from about Rs 300 crores three years ago to Rs 432 crores in 1976-77. This year's target is put around Rs 550 crores. By 1980, the turnover is envisaged to be raised to Rs 800 crores.

built-up capacity

The BHEL has built up capabilities to produce equipment annually to cater for generation of 4500/5000 MW power. The current domestic demand, however, is of a much lower order. Last year BHEL equipment commissioned for power generation was of the order of 1,500 MW—slightly more than the equipment commissioned in the previous year—even though 3,435 MW equipment was made available for installation. This target of commissioning of equipment this year is likely to be fixed at 3,000 MW. The deliveries of equipment are expected to be around 3,900 MW.

There has been some improvement in the order book of BHEL during the last 6-7 months. But still the situation leaves much to be desired. Currently, the undertaking is stated to have orders for power equipment for about two years, as against the desired level of 3/4 years. Some indications of further orders being placed in the near future are there. But there is apparently need for having a long-term perspective for power development in the country, say for 10 years, so that realistic plans are drawn up by equipment manufacturers—not only BHEL but also others—in respect of the utilisation of the installed capacities. If, for instance, an indication can be given of the likely minimum and maximum requirements of power generation equipment to be met by BHEL—of course, on a regular flow of orders—the undertaking can earmark the

requisite capacity for this purpose and plan for further diversification of its product pattern to optimise capacity utilisation.

The BHEL's present development plans do not envisage addition of any new plant. Some gaps which may come to notice, however, will be filled up. The emphasis is to be largely on rationalisation and modernisation of the production facilities. The rationalisation and modernisation programme is envisaged to be undertaken primarily through the self-generated resources, including those of foreign exchange. The product-pattern is proposed to be diversified further to the extent possible. The major area of development will be the manufacture of steel mills controls for which an agreement has already been signed with Siemens of West Germany, besides the production of higher ranges of equipment, including the 500/750 MW sets.

The current year should be the crucial one for BHEL. Not only will the undertaking be facing the onerous task of concluding a new wage agreement with its workmen in the next few months but also its first 200/210 MW power generation set would go on stream. The management is confident of tacking the former issue amicably. It is equally confident about the successful working of its first new generation power set. If its expectations in the latter respect materialise, it indeed, will augur well for its future growth.

Reorganising financial machinery: commercial banks

S. L. N. Simha

India has a balanced commercial banking structure with a reasonably strong foundation. What is now called for, according to the author, is consolidation of the progress achieved and weeding out of weak elements in the system. He is against giant-sized banking institutions in the interest of greater democratic functioning.

THE FINANCE minister has to be complimented on his quick decision to wind up the Banking Commission that was set up in 1976 under the chairmanship of Mr Manubhai Shah. This is not to say that all is well with the Indian banking structure. A lot needs to be done to streamline the commercial, cooperative and developmental banking structure of the country. The functioning of financial institutions during the last two years or so has come in for severe criticism in many quarters. The matter has to be considered not merely from the angle of rapid expansion of banking offices and enlargement of the flow of credit to the so-called neglected and priority sectors, but also from the point of view of preventing the financial institutions from playing into the hands of ministers and politicians in utter disregard of financial propriety.

The Indian commercial banking system has had a very good record of evolution, especially in the last three decades of post-independence. Partly as a matter of enlightened self-interest and partly in response to socio-political pressures, banks have endeavoured to meet the credit needs of a developing economy by harmonising their innate conservative outlook with a conscious effort to enlarge substantially the flow of credit to priority and neglected sectors, such as agriculture and small-scale industrial units. Some attention has also been given to channel credit to the economically backward districts and regions. Also, there is now a more conscious effort on the part of the bankers to relate credit supply to the genuine needs of the borrowing units rather than relying mainly on security.

Opinions have naturally differed as to the extent to which banks have made progress in reorienting their lending to promote the objective of rapid economic growth with social justice. In this regard, we have witnessed, not infrequently, the amusing spectacle of ministers and Reserve Bank governors blowing hot and cold, of claiming a great deal in this regard and also of sharply criticising the banks for their poor performance to meet the requirements of the farmer and the small man.

The situation is obviously a difficult one to fathom. This is probably a matter analogous to Sir Roger de Coverley's judgments, namely, much may be said on both sides. Undoubtedly, there is scope for larger channelling of credit to the so-called neglected and priority sectors. On the other hand, it is also true that a lot of money has been provided to these sectors without a careful appraisal of the projects and adequate supervision over the end-use of credit. It would appear that a lot of these borrowers have regarded the credit they have obtained as 'non-interest-bearing non-repayable' loans! Part of the difficulty has been that commercial banks have had to announce 'targets' for their 'priority' lending. So, what is considered more important is the fulfilment of targets in terms of amounts lent, rather than the quality of the credit supplied. As already mentioned, God alone knows what part of the new lending is sound and what part not so sound. A tremendous amount of inspection work by an independent agency would be required before a judgment can be passed on this. So, all that can be said now is that there is no room for complacency in this regard.

An aspect of the functioning of commercial banks that may be regarded as very successful is the expansion of banking offices. In particular, the progress in regard to the opening of rural branches has been truly phenomenal. However, in this matter too, there is cause for some concern in that branches would appear to have been opened indiscriminately, without regard to the availability of deposits or scope for credit extension. At the same time, one must take a somewhat long-term view in this matter and hope to build up business for the new branches. In other words, so far as branch expansion is concerned, what is perhaps now called for is a

process of consolidation. Consolidation does not mean a ban on further branch expansion; it only means that the pace of branch expansion has to be slowed down for some time, until a comprehensive review of the last decade's branch expansion programme has been carried out.

There are a number of other areas in which the efficiency of the Indian banking system has to improve a great deal. Equally important is the need to cut down delays. The collection of cheques, for instance, takes an inordinately long time. The various forms used in banking offices are far from uniform, notwithstanding the fact that there is the Indian Banks' Association and the National Institute of Bank Management, which are supposed to be helping in the process of standardisation and rationalisation.

attention to training

The training of banking officials is, happily, receiving considerable attention. Banks in general now seem to be genuinely anxious to provide training facilities to all categories of staff. There is also a welcome, even if modest, change in the recruitment policies of commercial banks. They are now recruiting chartered accountants, financial analysts, economists, statisticians and engineers.

The totality of the commercial banking situation as it exists today, is that it is raised on reasonably strong foundation. What is now called for is both a consolidation of the progress achieved and the weeding out of the weak elements in the system? It is of the utmost importance that banks function without being subjected to political pressures of any sort. Banks would have to have a good bit of autonomy in their day-to-day functioning, subject to broad guidelines from the government and the Reserve Bank. Banks must be headed by men of ability, experience and exceptional integrity. They must be assured of reasonably long tenure and security against the whims and fancies of persons in authority in the ministry of Finance and the Reserve Bank. It is also important that banks are able to give a great deal of attention to the removal of regional disparities and take a dynamic interest in the development of the hinterland in which banking offices are located.

If these objectives have to be achieved, we should refrain from making our banks giant-sized institutions on some mistaken notions about the economies of large-scale operations. The reason why this author is happy about the winding up of the Banking Commission is that it would appear to have been set up primarily to bring about regrouping of the nationalised banks into even bigger ones. Actually, the time has come when we should think in opposite terms, namely, to prevent some of the existing institutions from becoming larger. Concentration of power and authority, whether in the public sector or the private sector, is bad for democracy. This is especially true of institutions which command money. With wrong people in government and in the Reserve Bank, the danger of unhealthy influence on the banking system is greater if there is a fewer number of institutions. Therefore, what should now be done is to follow a conscious policy of prevention of growth of giant institutions.

Apart from the arguments of concentration of power, even from the points of view of economy of operations, proper appraisal of credit needs of the borrowing units and of promoting economic development in the hinterland of banks, relatively smaller institutions are more suited than giant organisations. Even a bank that has half a dozen or a dozen branches can function very efficiently, provided proper persons are at the helm of affairs.

balanced structure

By design as well as by accident, India has a balanced commercial banking structure, with considerable diversity. Ours is a happy mean between the extremes of the 14,000 banks as in the USA or a few banks only as in the UK, though in the latter country a number of foreign institutions operate. We have about a hundred commercial banks, nearly all of them being 'scheduled' banks or members of the central banking system. Twenty-two of these are nationalised banks and fourteen are foreign banks. Of the twenty-two nationalised banks, eight constitute practically a single entity, namely, the State Bank of India and its seven subsidiaries.

The biggest is the State Bank of India which, at the end of 1975, had 3,814 branches. As of the same date, in respect of the fourteen nationalised banks, the number of branches varied from 454 for the Bank of Maharashtra to 1,296 for the Central Bank. These fifteen banks accounted for a total of about 14,500 branches, of which about 1,500 were established during 1975. The data for the seven subsidiaries are available only as at the end of 1974. The number of branches varied from 129 for the State Bank of Indore to 364 for the State Bank of Bikaner and Jaipur. The total number of branches of the seven subsidiaries of the SBI stood at 1,707 at the end of 1974.

private sector banks

So far as the non-nationalised Indian banks go, the number of branches, at the end of 1974, ranged from just two in the case of Traders Bank, New Delhi, to 307 branches of the Andhra Bank, Hyderabad. In the last two years, of course, there has been a tremendous expansion of the branches of some of the non-nationalised banks. Thus, the Andhra Bank has now over 500 branches and the Vijaya Bank about 475 branches.

What constitutes a minimum size for a bank to be viable, it is very difficult to say. It depends upon the location, type of customers, the economic hinterland and efficiency and integrity of those managing the bank. A bank with even 2-3 branches could be a viable and successful one, whereas a bank with even 200 branches may not be a successful one. It is significant that a number of small banks have been in operation for 40-50 years. Thus, the Miraj State Bank, with only 11 branches at the end of 1974, has been in operation since 1929. The Punjab Co-operative Bank, Amritsar, with five branches has been functioning since 1904. This means that small banks can function successfully. It should not be difficult to decide the matter of the viability of a bank with reference to a number of small banks, that is to say, those having less than 100 branches, which again is a purely arbitrary figure.

In a vast country like India with mark-

ed regional economic disparities, it is perhaps easier to say whether a bank is too big for sound management. There is no doubt that the State Bank of India, with about 4,000 branches, has become unwieldy. The position is aggravated by the fact that it is also the overlord of its seven subsidiaries, which now have over 2,000 branches. A single group of over 6,000 branches is unwieldy by any standard. It is dangerous too to concentrate so much power in a single person, for Solomon-like, the same person is chairman of the SBI and the seven subsidiaries!

The first step to correct this state of affairs is for the State Bank of India to be directed to go very very slow in the matter of further branch expansion and for the seven subsidiaries to be delinked from the State Bank of India into seven independent institutions. As already mentioned, each of the subsidiaries has a fairly large number of branches and one must also note that each has tremendous scope for expansion in the years to come.

no regrouping needed

So far as the other nationalised banks are concerned, there should not be any regrouping or merger. Each one of them is very big by any standard and, as already mentioned, they have tremendous scope for growth in the next few years. It is interesting to recall that many of the nationalised banks were extremely viable even with much smaller number of branches. The Bank of India has been one of the soundest banks, with high rating by the investors. In 1961, it had only 65 offices. Surely, with about 1,000 branches now, this bank can be very viable without any merger. The same thing can be said of many other banks. Thus, the Indian Overseas Bank was doing very well with only 63 branches in 1961, as compared to the present number of over 500. Even the State Bank of India, with less than 400 offices as far back as 1951, was an exceptionally viable one, its shares being very much a blue chip.

Therefore, from the angle of viability, there is no justification at all to bring about mergers, so far as the nationalised banks are concerned. In regard to non-nationalised banks, mergers may be brought about on a selective basis. If the commercial banks have to fulfil the developmental role that is expected of them now, it is not desirable to make them giant institutions, with far-flung branches. The area of operations should be somewhat restricted. What this calls for is a reorientation of the policy with regard to licensing of branches. Most of the banks should be asked to concentrate on particular areas, depending upon their size.

branch expansion

Thus, banks like the Indian Bank, the Indian Overseas Bank, Syndicate Bank, the State Bank of Hyderabad and the State Bank of Travancore should not be permitted to open branches in places other than the four southern states. Their branches in places other than state capitals should be closed and the business passed on the principal banks of the region. Likewise, the Bank of Baroda, the Bank of India, the Union Bank and the Bank of Maharashtra must be asked to confine their branches, from now on, to Maharashtra, Gujarat and Madhya Pradesh. The Punjab National Bank and the Central Bank of India, which for very long have been all-India banks, may be given a little more freedom in the matter of opening branches in the country but even they should concentrate; the Punjab National Bank for instance, in the states of Punjab, Haryana, Uttar Pradesh, Jammu & Kashmir and Himachal Pradesh. As regards the non-nationalised banks, the geographical coverage must be even more restricted except in regard to 2-3 major banks such as the Andhra Bank and the Vijaya Bank. There is no point in a relatively small bank, say from a southern State, opening branches in Himachal Pradesh or Nagaland or Assam.

Commercial banks have to function as developmental agencies and not merely as purveyors of money and credit. Bank employees have to be motivated into performing this broader role of banks becoming catalytic agents for economic growth and social improvement. The motivation for more efficiency and socially purposeful operations of commercial banks has to come from the top executives of the banks. It is, therefore, of the highest importance that people with ability and vision are appointed to the position of chairmen of commercial banks. At present, in respect of nationalised banks, the appointments are made by government, probably in consultation with the Reserve Bank. It is desirable to take away this power of appointment from the politicians. I would suggest the establishment of a permanent Banking Commission, for the purpose of appointing the chairmen and a few other top executives of the nationalised banks. The Banking Commission must also have the responsibility of approving the appointment of chairmen of non-nationalised banks.

It is not necessary that the chairmen of banks should have had a great deal of banking experience. In this matter, it is good to cast the net wide and get very able and dedicated people, some of them bankers and some non-bankers, to head our commercial banks. In the matter of appointment of the chairmen and senior officials, there must be some mobility. There is no reason why only a south Indian should head the Indian Bank or the Indian Overseas Bank and a Punjabi the Punjab National Bank. Senior people from one bank must be appointed to higher positions in other banks, to bring in fresh thinking. Senior managers should be transferred from one bank to another.

inspection facility

The Banking Commission must also have the responsibility of inspecting all the commercial banks, to ensure that they function with efficiency and integrity. A good part of the inspection work must be transferred from the Reserve Bank to the proposed Banking Commission. The Reserve Bank's inspection must be minimal, to ensure the proper working of credit control measures. In most countries, the central bank does not have the primary responsibility for inspection of commercial banks: there is an independent agency for this purpose. This is a good arrangement and we should adopt it.

The Banking Commission must not be concerned with monetary or credit policy. Its primary purpose must be to promote efficiency and integrity, as already mentioned. It must streamline the bank operations and introduce a substantial measure of standardisation of forms,

documents and procedures. It must give the individual banks a lot of freedom in the matter of recruitment of staff. It must handle only the recruitment and selection of very senior personnel of banks. In view of this, it would be worthwhile to wind up the Banking Service Commission.

The proposed Banking Commission must have a chairman and four other members, their status corresponding to that of governor/deputy governors of the Reserve Bank or Justices of the Supreme Court. They must be given five-year terms of office in the first instance. Subject to broad guidelines from government given in writing and published widely in advance, the Banking Commission must have the final authority to deal with all matters coming under its pnrview rather than acting only as an advisory body, forwarding suggestions and recommendations to some other authority like the minister of Finance or the Governor of the Reserve Bank. The Banking Commission would naturally have a number of regional offices and sub-regional offices.

With the appointment of the Banking Commission, there would be a proper equitable distribution of financial power. This may help ensure that banks do not become the handmaids of politicians and sycophants among bureaucrats and economists.

Finally, it is also desirable to revive the National Credit Council, which was set up in 1968, under the chairmanship of the present prime minister, when he was Finance minister. We require a national forum to discuss, twice a year or so, national banking and credit matters. A number of countries have a body like this. The scope of the National Credit Council could be widened, so as to include the operations of development banks and investment institutions like the LIC.

In the above paragraphs, some suggestions have been made regarding the functioning of our commercial banks. The functioning of the cooperative credit institutions, the development banks and the investment institutions also need to be reviewed and changes made in their set-up and policy-orientation.

Against raising exemption limit for income-tax

Dr Anil Kumar Jain

The author, who is connected with the Department of Economics, Banaras Hindu University, argues against raising the income-tax exemption limit to Rs 10,000 as promised by the Janata party in its election manifesto. He compares the incidence of income-tax on multiples of per capita income in some countries and indicates that at lower levels it is much less in India. The Canadian model of yearly adjustment of exemption limit to the price index also does not find favour with the author under Indian conditions.

Since the publication of the final report on Rationalisation and Simplification of the Tax Structure by Mr S. Bhoothalingam, there has been a continuous demand from a section of the population to increase the exemption lim t of income-tax so as to provide relief to the people in the lower income group to compensate them for rising prices. It was chiefly due to these reasons that the exemption limit for income-tax was increased from Rs 4000 to Rs 5000 from the assessment year 1971-72 and about 5 lakh tax-payers went out of the tax net. This limit was further raised to Rs 6000 by the Fi ance Act, 1974 and to Rs 8000 by the Finance (Amendment) Act, 1975. By this amendment 7.3 lakh tax-payers went out of the tax net. With the assumption of office by the Janata government at the centre after the recent historic elections to the Lok Sabha, the demand has again started gathering ground that the exemption limit of income-tax for individuals should be raised to Rs 10,000 so that people may be compensated to some extent for the decline in the value of the rupee. However, we feel that the decision in this regard should be based not on political considerations but on economic factors.

Two principal arguments are advanced in favour of raising the exemption limit. First, it is pointed out that prices in the Indian economy have continued to rise since the beginning of the second five year Plan and except for a temporary respite during the emergency, this trend still continues. Prices increased by about 30 per cent during the second Plan, by 35.5 per cent during the third Plan and more rapidly during the fourth Plan. The wholesale price index (1961 62=100) touched an all-time high of 330.7 during the third week of September, 1974. Due to a number of administrative and legislative measures undertaken by the government, the wholesale price index fell to 291.4 on December 27, 1975, but again started going up and stood at 310.2 (prov.) on November 6, 1976. Even in terms of the revised series (1970-71=100), the wholesale price index for the week ended February 7, 1977 was higher by 8.7 per cent within the past one year.[1] This sharp increase in the price level has resulted in a decline in the value of our rupee. The value of our rupee came down to 34 paise in 1969-70.[2] In the following years it has come down further. Consequently the real exemption limit is much lower than the monetary exemption limit. The tax-payers should be compensated for this fall and the only way to do this is to raise the monetary exemption limit.

Canadian model

Supporters of this view cite as an example the Canadian method of relating the monetary exemption limit automatically to changes in consumer price index which was introduced in the fiscal year 1973. Under this scheme, "in each year an inflation factor would be determined based upon an increase in the consumer price index in an immediately preceding period and in each year the principal exemptions would be increased by the inflation factor... In addition, every year each of the brackets of taxable income would be adjusted upwards by the inflation factor".[3] We however do not agree with this view. No doubt prices have been rising and the value

of money has been falling, but this is not a sufficient justification for raising the exemption limit.

Inflation has affected the taxpayers and non-taxpayers alike and there is no reason why the taxpayers alone should be given relief by raising the exemption limit. In fact, the income-tax payers are relatively better off than the majority of population living at the subsistence level of income. India is a poor country and the prevailing exemption limit of Rs 8000 is much higher considering the fact that even at current prices our per capita income was Rs 1035 in 1975-76.[4] If we compare the incidence of income-tax on multiples of per capita income in some countries, we find that at lower income levels it is much less for India. In 1971-72, whereas in India an individual started paying income-tax at 8.5 times the per capita income; this multiple was 6.3 in Sri Lanka (1970), 1.5 in Britain, 1.3 in Japan (1970) and only 1.0 in the USA (1970).[5] Further, at 10 times the per capita income, the incidence of income-tax was 26.3 per cent in the USA, 26.4 per cent in Britain, 19.5 per cent in Japan, 2.8 per cent in Sri Lanka and only 1.6 per cent in India[6].

One of the drawbacks with our planners has been that they have tried to transplant the foreign seed on the Indian soil without adjusting it to Indian conditions and this has resulted in frequent failures of our policies and consequent changes therein. We feel that if the Canadian system is adopted in the country it will meet the same fate. Yearly adjustment of the exemption limit to changes in price index will involve administrative complications; already we are faced with a number of administrative problems due to complicated provisions of the Income-Tax Act.

Second, it is argued in favour of raising the exemption limit that the tax burden on the income-tax payers is relatively higher as compared to their counterparts in the agricultural sector and consequently, in terms of inter-sectoral equity, they deserve relief at least from income-tax[7]. This would be doing a new evil to correct an old evil. It is now agreed by almost all economists that the agricultural sector in India is inadequately taxed and the tax on this sector has been much less as compared to the non-agricultural sector. Equity considerations demand that "there has to be some kind of mechanism which ensures that incomes, whether derived from agricultural or non-agricultural activities, are taken into account for direct taxation on a progressive basis."[8] We think that "the remedy lies in taxing both the agricultural and non-agricultural incomes under the central income-tax. Such a step would ensure equity in taxation, prevent splitting of non-agricultural incomes, provide increased revenue to the government, and regulate the inter-sectoral flow of resources."[9] Giving relief to income-tax payers by raising the exemption limit is not the right approach to bring about inter-sectoral equity.

On the contrary, a number of considerations suggest that the exemption limit of income-tax should not be raised from the present level of Rs 8000. In our country the number of income-tax payers forms a very small percentage of the total population. The total number of income-tax payers on the General Index Register of the Income Tax Department during 1970-71 was 30.12 lakhs out of a total population of 55.1 crores. During the year 1974-75, the total number of taxpayers was 36.37 lakhs out of a total estimated population of 59.8 crores which forms 0.6 per cent of the total population. 'Individuals' form a major percentage of total taxpayers as is clear from the table below.

Out of these 36.37 lakh taxpayers, the total number of taxpayers with 'Individual' status was 28.84 lakhs which formed 79.3 per cent of the total. If the exemption limit is raised to Rs 10,000, the number of taxpayers would further go down by a few lakhs. When the income-tax exemption limit was raised from Rs 6000 to Rs 8000 by the Finance (Amendment)

Composition of Individual Assessees with Total Income Not Exceeding Rs 10,000 in the Total Number of Individual Assessees for Selected Years

Year	No of assessees			Total income assessed (Rs in crores)			Total tax payable (Rs in crores)		
	Individuals with T.I. upto Rs 10,000	Total	Col. 2 as % of col. 3	Individuals with T.I. upto Rs 10,000	Total	Col. 5 as % of col. 6	Individuals with T.I. upto Rs 10,000	Total	Col. 8 as % of col. 9
1	2	3	4	5	6	7	8	9	10
1950-51	3,19,948	3,95,017	81.0	149.01	342.34	43.5	5.82	63.66	9.0
1955-56	3,26,150	4,54,695	71.7	194.77	500.50	38.9	5.97	79.40	7.5
1960-61	6,30,7[illegible]6	8,28,347	76.1	343.58	779.55	44.0	7.14	98.06	7.3
1965-66	11,56,174	14,65,856	78.9	645.63	1286.44	50.2	17.59	144.81	12.1
1969-70	11,58,190	17,12,689	67.6	730.19	1915.15	38.1	23.84	266.53	8.9
1971-72	11,45,309	18,83,768	60.8	752.90	2311.87	32.5	28.73	357.18	8.0

Act, 1975, 7.3 lakh taxpayers went out of the tax net. Consequently, the coverage of population for income-tax would be further reduced if the limit is raised to Rs 10,000. In a developing economy where every citizen should contribute his mite towards national development, it is desirable that the coverage of population for income-tax should be increased rather than decreased. This would make people conscious of how their money is being utilised. At a time when there is great need for resources mobilisation, we can ill afford to reduce the number of taxpayers.

Mr Bhoothalingam in his report pointed out that by raising the exemption limit much work on petty assessments would be cut out and there would be improvement in the quality of collection as the officers would be able to concentrate more on revenue yielding cases.[10] This argument is not of much validity today. The 'Summary Assessment Scheme', under which the assessment is completed on the basis of the return submitted without requiring the presence of the assessees or their account books, has considerably saved the time of the officers on small income cases. For example, out of the total number of 38.44 lakh assessments completed in 1971-72, 35.98 lakhs in 1972-73 and 34.36 lakhs in 1973-74, assessments completed under the summary procedure were 23.12 lakhs, 26.53 lakhs and 25.06 lakhs respectively.[11]

resultant problems

The raising of the exemption limit is also likely to bring more problems and would result in a substantial loss of revenue. Although the exemption limit at present is Rs 8000, the operative limit is much higher on account of a number of tax incentives provided under the Income Tax Act. Prior to the amendment introduced by the Finance Act, 1974 there was separate deduction for conveyance, books etc. Now, in the case of salary income, this has been replaced by a standard deduction at the rate of 20 per cent of the salary up to Rs 10,000 and 10 per cent thereafter, subject to a maximum deduction of Rs 3,500. The standard deduction is allowed irrespective of the fact whether any expenditure incidental to employment has been incurred or not. Partial deduction is allowed in respect of payments made towards provident funds, life insurance policies, cumulative time deposits, public provident funds etc. The deduction is 100 per cent of such payment upto Rs 4000, 50 per cent of next Rs 6,000 and 40 per cent of the balance. Further, interest on bank deposits, dividends from Indian companies' units, etc upto Rs 3,000 are exempt from tax. An exemption up to Rs 2,000 is granted to income exclusively from Units. House rent allowance received from the employer upto a maximum of Rs 400 per month is not included in the income of the taxpayer for purposes of taxation. Interest on deposits in post office savings banks also is not taxed.

operative limit

The result is that even now the operative limit is 11,000 or more depending upon the sources of income and use to which income is put. Therefore, the raising of the exemption limit to Rs 10,000 would, in fact, amount to setting free all those who have an income up to Rs 14,000 or Rs 15,000 per annum. This would, by no means, be justifiable.

Once the exemption limit is raised to Rs 10,000 for individuals alone, most of the assessees who might be having taxable income extending up to Rs 15,000 or so would refrain from filing the return taking cover under the higher exemption limit and it would be very difficult for the Income-Tax Department to spot them without a pervasive and regular external survey. We are already aware that external surveys are conducted after long intervals. The raising of the exemption limit would also tempt the assessees in the higher income range to so split their incomes as to come within the exemption limit.

The revenue loss involved in raising the exemption limit to Rs 10,000 would also be substantial (see table). During 1971-72 (the latest year for which data are available) out of the total number of individual assessees of 18,83,768 in whose cases some income-tax demand was raised, there were 11,45,309 assessees with incomes upto Rs 10,000. Total income assessed in such cases was Rs 752.90 crores and the total tax payable Rs 28.73 crores.[12] If the exemption limit is raised to Rs 10,000, there will be a revenue loss of Rs 28.73 crores. In addition, if the rates of income-tax were to be fixed at nil per cent of the first Rs 10,000 there would be net loss of Rs 330 (on the basis of the presently prevailing rates) in every case with incomes above Rs 10,000.

In 1971-72, about 7.38 lakh individual assessees had an income above Rs 10,000. In each such case, a revenue loss of Rs 330 would be involved resulting in a loss of revenue to the tune of Rs 24.35 crores from these assessees. The total loss of revenue would come to Rs 53.08 crores. This loss is, by all means, substantial. It is computed on the basis of 1971-72 figures. Since then there has been an increase in the number of taxpayers. The loss thus would be much greater. This is only a conservative estimate because, as already indicated, there will be many who will refrain from filing returns under the cover of higer exemption limit and many will so split their incomes as to come within the exemption limit. The loss of revenue from such cases is difficult to measure.

References

1. Reported in *The Times of India*, Feb. 21, 1977.

2. O.P. Chawla, *Personal Taxation in India*, 1972, p. 93.

3. C.R. Thiagaraja Varma, "Indexing Income Tax: Canadian Scheme", *Eastern Economist*. September 14, 1973, p. 490.

4. *Report on Currency and Finance*, Vol. I, p. 1. 1975-76.

5. *Indian Economic Statistics*, Public Finance, Department of Economic Affairs, Ministry of Finance, Government of India, August 1973, p.74.

6. Ibid.

7. G. Thimmaiah, "Exemption Limit of Income-tax," *Eastern Economist*, February 1, 1974, p. 170-a.

8. *Report of the Committee on Taxation of Agricultural Wealth and Income*.

9. See the author's article, "A Note on Concept of Income under the Indian Income Tax", *Public Finances/Finances Publiques*, Vol. XXX, No. 1, 1975, p. 91.

10. S. Bhoothalingam, *Final Report on Rationalisation and Simplification of the Tax Structure*, 1968, pp. 51-53.

11. *Report of the Comptroller and Auditor General of India for the Year 1973–74*, Government of India (Civil), Vol. II, p. 27.

12. This demand was raised on the basis of actual assessments done in 1971-72. Since all the assessments are not disposed of every year, the revenue involved may *be* more than Rs 28.73 crores.

Are the days of numbered accounts numbered?

V. Balasubramanian

For the past few weeks the Swiss banking community has reeled under one disclosure after another implicating many bank executives in illegal manipulations which resulted in huge losses. Though there have been some withdrawals by Arab depositors, there has been no nervous outflow. The Swiss government has already tightened its surveillance rules but ultimately it may have to provide legislation to break down the proverbial "secrecy" of Swiss banking.

THE COD defines a "gnome" as a "diminutive spirit of a subterranean race guarding treasures of earth." No wonder the men of wealth, power and position, who preside over the Swiss banking system, have never taken kindly to being referred to as "the gnomes of Zurich." Right now, however, they are having to put up with being called worse names. Envious money men in the financial capitals of other western countries are telling one another with unconcealed glee that they had known all along that what did happen at last had to happen some day. The subject of their not too charitable gossip is a banking scandal of international dimensions, involving Switzerland's oldest commercial bank, the Credit Suisse (the Swiss Credit Bank), which is also one of the big three of Swiss commercial banking. Surfacing in April this year, reports of this scandal spoke of criminal mismanagement and falsification of documents, in connection with the massive mis-direction to a Liechtenstein holding company of Italian hot money deposited with the bank's branch at Chiasso on the Italian border. The transaction is stated to have involved the Credit Suisse in a loss which is believed to be very much larger than the Sw Fr 250 million ($98.8 million) initially mentioned by the bank's head office. According to the public prosecutor in Lugano the total amount at risk could be in the neighbourhood of Sw Fr 2,200 million ($869 million) or more than the bank's total issued capital. Subsequent estimates however have discounted this figure as highly exaggerated and the probable loss is now placed around Sw Fr 1,000 million (about $400 million). In any case the top management of the Credit Suisse has declared that its resources could absorb the loss, whatever it is, without undue strain. In fact the Credit Suisse has declined, with or without thanks, an offer by the other two of the big three viz, the Union Bank of Switzerland and the Swiss Bank Corporation, to provide a safety net of Sw Fr 3,000 million, jointly with the Swiss National Bank. The criminal activities allegedly perpetrated by officials of the Chiasso branch were said to have been accomplished without the knowledge of the Credit Suisse general management in Zurich. This version is generally accepted and this has helped to save the bank's reputation for integrity, but could do nothing to still the doubts that have been raised against the vaunted efficiency of the Swiss banking system at large, apart from that of the Credit Suisse in particular.

WINDOW ON THE WORLD

no fright

There is however no evidence yet that foreign depositors of various descriptions, who have been finding a safe haven for their money, dirty or otherwise, in the Swiss banking system, have taken or are beginning to take fright. There have been unconfirmed reports of some withdrawals by Arab depositors, but so far there has been nothing like a nervous outflow of funds. What has happened is that second thoughts are being had, as much within Switzerland as outside, about the traditional concept of the Swiss bankers being an absolutely "solid, stolid, conservative, neutral and discreet" tribe. The Swiss banks draw over 40 per cent of their total balance-sheet and liabilities from abroad and also control some $21 billion of fiduciary funds derived almost entirely from foreign investors and invested by the banks in their own name but on behalf of and at the risk of their foreign clients. It is obvious therefore that reassurance must quickly come about the basic honesty and sense of responsibility of Swiss bank managements.

The Swiss government is naturally exercised over this problem and there is already a move for tightening up banking legislation. In fact rules governing bank audits were made more stringent some time ago and an attempt was also made to increase the effectiveness of the surveillance rules of the Federal Banking Commission. These safeguards, obviously, have not proved adequate and one of the major features of further banking legislation may well be an attempt to break down the "secrecy" of Swiss banking, which has become a mystique. The problem is to reconcile the requirements of more open banking with the trade advantage which

Swiss banks enjoy over banks in other western countries by being able to offer certain unique facilities not strictly related to normal professional services. To put it bluntly, can it be assumed that the days of numbered accounts are numbered? Perhaps it is strictly not necessary for the Swiss banks to bank as much as they may be doing now on extra-curricular attractions for securing their share or more than their share of the capital funds floating around the world in search of safety plus income. So long as the Swiss currency remains as strong as it is, among the people with lots and lots of money, there will always be at least as many who will bank their money in Switzerland as in any other country in western Europe.

Oil over troubled waters

The European Economic Community is making every effort at saving energy since the oil price hike of 1973. Turning to nuclear energy is not without hazard. After all other sources have been tapped, the commission believes that it will still be importing 55 per cent of its total energy requirements eight years hence. The OPEC is under internal pressure to increase the price of its crude. Under the circumstances, the commission thinks it most essential to encourage a more lively public debate on possible sources of supply and for identifying lines of action to be taken.

THE PRICE of oil is rising whilst public opinion is becoming more reticent about the nuclear alternative. To meet Europe's growing energy requirements over the coming years it seems that we will have to do more than switch off the occasional light to conserve energy. In a series of reports on the energy situation, the European coal market and the European energy savings programme, the European Commission has warned the Nine that much greater effort is required to learn how to make a little energy go a long way.

The high and increasing level of dependence of the industrialised world on oil from the OPEC countries has been a crucial problem since 1973 when these countries finally bared their economic teeth. Over the next decade, world demand for oil is expected to increase by one third and will stand at something like 30 to 40 million barrels per day (these figures are already higher than 1976 forecasts). It is unlikely that producers will find it in their interests to produce this much, even if they intend to increase production at all. Some of them expect their resources to be exhausted within fifteen years and those countries with large reserves will not necessarily be in need of the income from increased production. The principle oil-producing country, Saudi Arabia, will be faced with world demand for its oil of around 12 million barrels per day, whilst it only needs to produce some five million per day to cover its own ambitious development programme. As the European Commission stated last October, this situation puts considerable pressure on such countries to increase oil prices. Such increases would seriously harm world economic growth.

Most of the increase in demand for oil will come from outside the Community. Most governments are, however, conscious of the need to diversify the energy requirements of their countries while saving as much energy as possible at the same time.

The Community's efforts to save energy since the 1973 oil crisis have been quite encouraging. In 1976 we consumed 2.5 per cent less energy than in 1973, whilst still attaining a growth rate of four per cent GNP. We have reduced our imports by 7.5 per cent but have been assisted by a number of other factors such as the economic recession with its reduced industrial activity and the good weather. The latest indications for the future are somewhat alarming. If our nuclear energy capacity in 1985 was limited to the 95 Gigawatts actually in operation, in construction or still planned, instead of the 125 Gigawatts which was the objective last October, energy deficit involving greater oil imports could not be avoided. This would entail an additional 60,000 million dollars per year at current prices. Oil would still be needed to meet 50 per cent of our needs. Taking account of imports of coal and gas, eight years from now the Community would still be importing 55 per cent of its total energy requirements. The OPEC producers have made it clear, in the North-South dialogue and elsewhere that the industrialised world's present and intended use of oil is excessive.

Last year the Community maintained that the aim should be to develop national energy resources to ensure continued economic growth over the coming decade without increasing oil imports. This is the basis for its programmes, but to ensure this the Community will now be required to intervene in other ways, particularly:

The Community needs a more dynamic and effective energy saving programme; Greater encouragement has to be given to the development of national coal production and its outlets;

As regards nuclear energy, doubts as to the role it should have in the programme should be cleared up and public confidence re-established. It will also be necessary to continue research and development work on safety and other related problems; and

The Community needs a strong programme if new energy sources are to gain maximum benefit, even if the contribution of such sources will still be very modest by 1985. The work on nuclear fusion should be continued in any event, since it is the principal hope for meeting energy needs in the next century.

It is difficult to evaluate the economies that have already been achieved since consumption patterns in recent time have been greatly affected by the low level of economic activity. Most observers feel that savings resulting from measures taken by member states themselves have been small and are at most only a half of the total seven per cent reduction in energy consumption per unit GNP recorded between 1973 and 1976.

Governments have yet to come to terms with problems, such as which sectors should be economised in most to achieve

the best practical results and whether it is sufficient to rely only on price mechanisms, publicity and information campaigns.

One of the most essential things the member states and the European Commission should do is encourage a more lively public debate on the possible future of energy supply and demand and try and identify the European and the world framework within which action has to be taken. Tomorrow's energy problems need to be looked at as intensively as today's economic problems are. But for such a debate to take place and be effective, the statistical instruments and methods for evaluating the net benefits of energy saving have to be improved. It is a two-fold problem consisting on the one hand of trying to cut wastage and on the other trying to ensure economic growth.

The sectors where rapid solutions need to be found are:

The energy requirements for the heating of residential, industrial and commercial buildings. The state of the sector dealing with thermal isolation and associated materials;

The car industry, in view of standardising the measurement of fuel consumption, reducing fuel consumption and extending vehicle life;

The electrical equipment industry, particularly as regards domestic usage to standardise the measurement of energy consumption, reducing energy consumption whilst prolonging equipment life;

Energy conversion, with a view to reducing losses in production; and

The possibilities of more savings in other large energy consuming industries.

Courtesy—Euroforum

MOVING FINGER

Governments, no matter what their political complexions are or how high the intellectual honesty of their individual ministers is, always have to pretend that they can make omelettes without breaking eggs. Having announced its resolve to reduce expenditure on administration and given some indication of how it proposes to do so, the central government is now trying to convince the public that its economy measures need cause no hardship to anybody. In particular, it is being made out that no retrenchment of staff will be involved.

This may be true as far as it goes, if only because the bulk of government employees is normally secure from retrenchment by virtue of its conditions of service. However, it ought to be clear, surely, that the government, no more than anybody else, cannot eat the cake and have it. It is impossible to achieve economy in administration without an austere employment policy and tight control over recruitment of staff. To say otherwise is to indulge in double talk.

If it is found anywhere in the government that a dozen men have been engaged to do the work of only half-a-dozen, there is no sense in talking about economy until and unless the six "extras" are eased out of the public payroll. The longer it takes to do this and the more tortuous the methods employed the less effective becomes the economy campaign. All this is inescapable, though unpalatable, truth. Hence the ingrained scepticism in the public mind about noisily advertised economy drives in the government. Perhaps here is a case where the emergency slogan, "Talk less, Work more", may make it less difficult for the government to go about effecting economy in the administration without fanfare and consequently without arousing opposition gratuitously. As a matter of fact, economy drives should be publicised only after they have been successfully completed. It is so often true that silence is golden.

Economy of staff can of course be obtained only through increased productivity. This is a proposition which the big employer-ministries, such as Railways and Posts and Telegraphs, particularly, should consider in all seriousness. Again banking and insurance are two areas where the problem of redundant labour might be dealt with in the short period through setting wholly or partially idle hands to the task of providing more and better service, more cheerfully, to the public. Here, it must be said that the nationalised banks and the LIC have been behaving in an extremely funny manner. Instead of honestly recognising the fact that it is their clientele who are the real losers from the rising working expenses of the nationalised banks or the LIC, these institutions are using these very increases in their expenses as a stick to beat the public with. Thus even elementary facilities and essential services to customers are being abolished one after another on the excuse that it is costing the banks or the LIC too much to continue to provide them. To the extent that it is not always possible to dispense with redundant staff immediately, both justice and wisdom demand that the staff concerned should be made to earn their pay. This is best done by placing the emphasis squarely on the amplification and improvement of the facilities and services available to the concerned customers or the general public. A beginning could be made in this direction by restoring and strengthening the disciplinary jurisdiction of supervisory personnel at various levels.

It should not be unrea-sonable to suppose that a minister for Health should normally be more interested in the living rather than in the dead. But, then, Mr Raj Narain is not a normal person, or, at any rate not a normal Health minister. His latest major decision in the discharge of the responsibilities of his portfolio is that an enquiry should be ordered into the circumstances of Ram Manohar Lohia's death. After this an enquiry into the circumstances of the death of Deen Dayal Upadhyaya cannot be far behind, while looking into Shyama Prasad Mukherjee's death has been long overdue. Meanwhile the wife of L.N. Mishra has asked for a new investigation into the circumstances of her husband's murder.

No such special consideration, however, could be pleaded for the reopening of the Nagamani case. Mrs Nagamani, callously slaughtered, brutally disfigured and dumped naked on the roadside, was after all no politician, famous or infamous. She was only an ordinary housewife, such as we have in their millions in this or any other country and if her teenage son is still shedding tears over his mother's blood crying out for vengeance, his voice is not strong enough not to be lost in the corridors of power.

This, of course, is no reason why our politicians should not have as many death enquiries as they could find ex-judges for. There will be a demand soon, I am sure, that the investigation of the death of Col. T.S. Anand should not be handled merely as normal police business. Come to think of it, Lal Bahadur Shastri's death was always a mystery. So was Jawaharlal Nehru's. After all, there are always people wanting to be prime ministers and it stands to logic that some of them must have as lively interest in prime ministers dying.

VB

TRADE WINDS

Price Freeze

LEADING INDUSTRIAL houses and major industrial units which account for substantial part of the production of manufactured goods in the country have decided on a voluntary price freeze till the end of the year with a view to supporting the government's efforts to hold the price line. The industrial houses represented at a recent meeting held at Bombay, which took the price freeze decision included Tatas, Birlas, Mafatlals, Kasturbhai group of Ahmedabad, Sri Ram Group of Delhi, Thackerseys, Wadias, Singhanias, Kirloskars of Pune, Mahindras and Arunachalam group of Madras. The major industrial units included ICI and Larsen and Toubro. At the end of the deliberations which lasted more than two hours, Mr Kasturbhai Lalbhai, on whose initiative the meeting was convened, moved the resolution on holding the price line. This was unanimously adopted.

The resolution said: "In order to assist the government in its laudable endeavour to hold the price line, we have decided not to increase the prices of our products till December 31, 1977, except in the case of loss-making units. If the costs of any inputs, including raw materials, increase, we shall absorb them as far as possible. Only if such costs rise so high as to render imperative a rise in the prices of our products, would we be compelled to effect an increase. We sincerely hope that other industrial units in the country will follow the same line of action."

Among those who participated in these discussions were Mr J.R.D. Tata, Mr N.A. Palkhivala, Mr Arvind Mafatlal, Mr Ratan Tata, Mr S. Moolgaokar, Mr K.M.D. Thackersey, Dr Bharat Ram, Mr S.L. Kirloskar, Mr Ashok Birla, Mr Gopal Krishna Singhania, Mr Gopal Wadia, Mr D.S. Seth and Mr Tripathi of ICI. Explaining the implications of the resolution, Mr Palkhivala said that industrial units whose representatives were present at the meeting would see to it that prices were held even if that meant a reduction in their profitability. Exemption has been given only to units incurring losses. Thus the industry is making its due contribution for price stability. Later on, additional steps will be taken to ensure that ultimately consumers' interests are protected.

Stress on Employment in Planning

The Planning Commission has been charged with the duty of formulating a plan which will ensure productive employment in a reasonable time for all adults. The employment will be provided through programmes of agricultural development, rural industries and small scale industries. In a meeting with the deputy chairman and members of the Planning Commission, Mr Morarji Desai, prime minister and chairman, Planning Commission, laid stress on improving the infrastructure and provision of social services to increase the employment potential. He ruled out substantial subsidies. Expansion of large-scale industries, except in so far as it is necessary to ensure success of the above mentioned sectors, will be given less importance. Mr Desai also hinted at substantial changes in methodology of planning policies, of import substitution and export promotion, of land use, credit policies, science and technology and development of backward areas. Emphasis will be given to detailed area planning. Public distribution of food and other common consumption goods will need special attention.

Marked Shift

Dr D.T. Lakdawala, deputy chairman, Planning Commission, felt that one of the basic weaknesses of planning in India has been the limitations of implementation and the absence of proper monitoring and evaluation process. Since plans relying on agriculture and small-scale industry will largely be within the states' sphere, it is essential to spread this competence in the states. This will also mean a marked shift in the Planning Commission's activities and the implementation will be spread over a period of time. A substantial change in the emphasis will be felt in the sixth Plan, but it may be possible to change somewhat the fifth Plan to pave the way for the radical changes that are likely to follow. This may imply a review of some fifth Plan projects, irrigation projects and expansion programmes to ensure that the growth focii are created in all parts of the country. Certain relatively inessential schemes in industry may be phased or dropped.

Ceiling on Cotton Prices

The board of directors of the East India Cotton Association Ltd at a meeting held recently, when representatives of some members of the association were also present, decided to impose a voluntary ceiling on prices of cotton for the current season, and resolved that the prices of standard descriptions of cotton be fixed effective from June 4, 1977 at the level of prices registered by the association as on March 31 or May 31, 1977, whichever was lower. It was further decided that the members of the association be advised that they should not trade effective from June 4, 1977 at rates higher than the rates as stated above in respect of cottons of 1976-77 season. Carrying charges, if any, should be charged separately and these should not exceed two per cent.

The board now seeks the cooperation of all the up-country cotton trade organisations and requests them to initiate action in respect of cotton grown in their areas on the lines indicated above. The board also hopes that Maharashtra State Cooperative Marketing Federation will consider these rates duly while fixing their selling rates.

Spot Rates

The rates fixed are Bombay spot rates godown delivery and include central sales-tax, railway freight, interest @ $1\frac{1}{2}$ per cent for the period of transit, insurance during transit, other expenses not exceeding $\frac{1}{2}$ per cent and octroi at Bombay. Approximate maximum rates, may be worked out by the associations concerned giving

due reductions in the Bombay spot rates and announce the ceiling for cottons grown in their respective areas.

New Set-up in Commerce Ministry

The Commerce ministry is being reorganised. As a result, it will have only two secretaries instead of three. Mr S.G. Bose Mullick, Commerce secretary, has proceeded on leave preparatory to retirement. Dr P.C. Alexander, Foreign Trade secretary, will be the new Commerce secretary. Under the new set-up, there will be no separate secretary looking after Foreign Trade. The Commerce secretary, Dr. Alexander, will look after Foreign Trade as well.

Canadian Assistance for 1977-78

Canada's estimated spending in Official Development Assistance (ODA) for 1977-78 will be \$1.1 billion, a 10 per cent increase over last year's \$1,000,400,000 budget. From 1971 to 1976, ODA increases averaged 20 per cent, but in the light of the government's current policy of fiscal austerity, increases for 1976-77 and 1977-78 have been kept at about 10 per cent.

The percentage of the Gross National Product (GNP) to be spent on ODA in 1977-78 is projected at 0.53, the same as last year's ODA/GNP ratio, but down from the 0.56 level of two years ago. Although Canada remains committed to the UN goal of 0.7 per cent of GNP for ODA, set at the beginning of the Second Development Decade in 1970, the government has not set a date for reaching that goal. Official Development Assistance include CIDA's budget and all other assistance given by the government of Canada on concessional terms. So in 1977-78, ODA will consist of \$971,299,000 in CIDA loans, grants contributions, investments and advances \$34,500,000 in support for the International Development Research Centre, and \$94,201,000 in loans from the department of Finance.

Export Efforts Need Reorientation

Union minister for Commerce and Civil Supplies, Mr Mohan Dharia, stated recently that there would have to be certain reorientation and readjustment in the future export efforts to meet the needs of the Indian economy. Taking into consideration certain painful adjustments that might be required, the government had already made some liberal policy decisions to minimise such adjustment pains in its recent import policy, he added. There was no question of downgrading the priority treatment to the export sector, the effort needed not only to be sustained, but nourished and developed further. "It would, however, not be a prudent policy to encourage and freely allow the export of items of mass consumption and daily necessities,"he stated.

Redefining Priorities

Mr Dharia was delivering the convocation address for the post-graduate diploma in international trade of the Indian Institute of Foreign Trade. He spoke of the government's effort to redefine Plan priorities to make development more pragmatic from the point of view of providing more employment, wider dispersal of industries and making a significant effort in the removal of poverty. Lauding the export performance in 1976-77 he added that it was for the first time that the country had a trade surplus and many a non-traditional item had made a very successful appearance in the trade pattern. Besides, Indian goods were successfully competing against those of the west. He said although India was still a developing nation as far as science and technology was concerned, consultancy and construction know-how was very much being appreciated and sought in the developing nations of west Asia.

Advice to Taxmen

Finance minister, Mr H.M. Patel recently placed before the Income-tax Commissioners a ten-point plan to improve their image as well as that of the administrators of direct tax laws. He wanted them to do some "introspection" on the wide and many arbitrary powers that they had been vested with during the last few years.

Inaugurating the three-day annual conference of Income-tax Commissioners, Mr Patel wanted them to be lenient and understanding with the honest tax-payers while not hesitating to invoke the powers of search and seizure in the case of regular tax dodgers. He placed before them several suggestions to change their method of working. He proposed that the summary assessment scheme should be extended to cover a greater number of taxpayers. He felt that the summary assessment scheme introduced a few years ago under which the cases of small taxpayers were being decided without calling the assessee had been a success and wanted it to be advanced further so that more taxpayers come under its ambit.

He wanted the income tax officials to inform the assessees before calling for the reasons for doing so. He felt that merely calling upon a tax payer to appear in person would neither help the taxpayer nor would it be fair to the tax collector. He wanted the tax officials to do some home work on the returns submitted by the taxpayers before calling them for hearing.

He desired that the assessments should be completed within the assessment year itself as the taxpayers would like to know their liability as early as possible. Mr Patel asked the Income-tax Commissioners to be more realistic in assessments and not go on mere suepicion or half baked evidence.

Saudi Loan

Saudi Arabia signed recently an agreement with India extending a loan of \$100 million tied to finance two power projects in the state of Andhra Pradesh. This is the first agreement between India and Saudi Development Fund. The agreement was signed by Finance minister, Mr H.M. Patel on behalf of India and the Director-General and vice-chairman of the Saudi Fund for Development. Since the loans have been signed specifically to finance the Srisailam and Nagarjunasagar power projects, a separate project agreement was also signed. The minister for Power of Andhra Pradesh, Mr Raja Ram, signed on behalf of the state government. The Srisailam project envisages the erection of 4×110 MW units with a provision of three more generators subsequently. The total cost of the project is estimated at Rs 208 crores including Rs 41 crores for land acquisition. The first unit of the project is expected to be commissioned in March 1979,

nd the second, third and ourth units in October 1979, March 1980 and October 1980, respectively.

The Nagarjunasagar project which is expected to be commissioned in August this year will cost about Rs 15.60 crores. The total expenditure incurred during 1976-77 was Rs 6.26 crores. It was envisaged that the Saudi fund would take into account the entire amount spent on this project from April 1, 1976 upto the completion which was expected to be of the order of Rs 12.97 crores.

Names in the News

Mr H.C. Sarkar has been appointed by the union government as the managing director of the State Bank of India for a period of three years. He has already assumed charge of his new post.

Mr O.P. Gupta has taken over as the general manager of Punjab National Bank from May 24, 1977. He joined Punjab National Bank in 1943 and for about 35 years he has worked in various capacities as staff controller and secretary, senior regional manager, deputy general manager, additional general manager and now as general manager.

Mr A. Swaminathan, managing director of Hindustan Organic Chemicals Limited has been appointed chairman and managing director. Experienced in planning, designing, erecting and commissioning of chemical complexes, he has also participated in their management. He began his career as a project engineer in Friedrich Uhde GmbH, Dortmund, West Germany and successfully executed various important assignments.

Garments Exporters Association, New Delhi, has elected **Mr Vijay Mehta** as its President, **Mrs Prabha Chopra** as Vice-President, **Mr V.N. Behal** as Hony. Gen. Secretary and **Mr R.J. Kohli** as Hony Treasurer for the year 1977-78.

Mr K. Eswaran chairman & managing director of Easun group of industries and a leading industrialist of south India, has been elected as chairman of the Tamil Nadu state board of the All-India Manufacturers' Organisation for the year 1977 at the annual meeting held on May 21, 1977.

COMPANY AFFAIRS

Central Bank of India

CENTRAL BANK of India has reported commendable progress in almost all the spheres of its operations during 1976. Deposits shot up to Rs 1468 crores from Rs 1181 crores, registering an increase as much as Rs 287 crores or 24.3 per cent over 1975. Advances too recorded a spectacular rise to Rs 1028 crores from Rs 830 crores, a gain of Rs 198 crores or 23.8 per cent over 1975. Advances to priority sectors accounted for Rs 240 crores in 1976 as against Rs 191 crores in the preceding year while the credit extended to exports increased from Rs 56 crores to Rs 82 crores. The number of clientele swelled to 55.71 lakhs from 47.82 lakhs in 1975. The number of depositors went up to 51.25 lakhs from 44.12 lakhs while the number of borrowers rose to 4.46 lakhs from 3.70 lakhs in 1975. There was a record expansion in the number of agricultural borrowers from 2.33 lakhs to 2.97 lakhs, while the number of self-employed borrowers nearly doubled from 0.22 lakh to 0.42 lakhs. The other small borrowers too registered an impressive rise from 0.39 lakh to 0.71 lakh.

The total number of branches at the end of 1976 stood at 1419 as compared to 1297 in 1975 out of which 878 were located in rural and semi-urban areas as against 822 in the preceding year.

The bank made further headway in 1976 through determined efforts to meet its social obligations. The bank sponsored four regional rural banks for intensive rural development. Fifteen district credit plans were prepared for the bank's lead districts in Madhya Pradesh, Uttar Pradesh, West Bengal and Maharashtra in 1976, raising the total number to 18. Of these plans, five are already under implementation. In the interest of sustaining industrial production and staving off unemployment, the bank assisted a number of industrial units in their difficult times, despite heavy odds. It is a matter of great satisfaction that with the bank's assistance about 25,000 workmen were saved from unemployment.

Customer Service

To provide better customer service, the bank introduced the one-point counter service, so that deposit of cash and cheques as well as withdrawals can be made at one counter. The customers can also deposit cash at any of the bank's several branches for credit to their account at any other branch in the same city/town. The bank is acutely aware of the ground yet to cover, goals yet to reach. The bank has during 1976 redesigned its organisational structure and its management systems, introduced performance budgeting and taken steps to monitor proper deployment of credit according to national priorities.

During 1977, the bank proposes to extend banking to 118 unbanked rural centres, to render assistance to an additional 1.5 lakhs persons, sponsor three more regional rural banks, prepare 21 more district credit plans in the bank's lead districts, finance 80 more primary credit societies and sponsor 15 more farmers' service societies. The bank has a lot other plans to render service to the people.

Sandvik Asia

Sandvik Asia Ltd has reported lower sales and profits during the year ended December 31, 1976. Sales declined to Rs 12.25 crores from Rs 14.28 crores in 1975 while gross profit declined to Rs 3.71 crores from Rs 4.38 crores in the preceding year. After providing Rs 51.17 lakhs for depreciation, Rs 13.70 lakhs for investment allowance and Rs 206.95 lakhs for taxation including adjustment of prior years, the net surplus for 1976 amounted to Rs 99.68 lakhs. In 1975 a sum of Rs 40.19 lakhs was provided for depreciation, Rs 80,000 for development rebate reserve and Rs 308.24 lakhs for taxation, leaving a net surplus of Rs 88.33 lakhs.

Recessionary trends in the engineering industry and more particularly inventory depletion by the customers due to credit squeeze and other factors affected adversely the demand for the products of the company during the year. Exports of the company to highly competitive western markets during the year amounted to Rs 77.14 lakhs as against Rs 57.88 lakhs in 1975.

The directors have recommended a dividend of Rs 20 per share on the enlarged share capital as at the end of the year. The dividend will absorb an amount a of Rs 35.20 lakhs.

The directors have allotted 44,000 fully paid new equity shares of Rs 100 each as bonus shares to the members of the company in the proportion of one new equity share for every three equity shares held. The bonus shares are also entitled to the dividend to be declared.

The company has now received capital goods licences for its expansion as well as modernisation programme. Orders have been placed with the foreign suppliers for the supply of machinery and some of the machines pertaining to the expansion programme have already been received. The company has agreed to undertake an export obligation of 60 per cent of the additional production upon expansion. It is also a term of the licence for

substantial expansion that the company shall, in accordance with the dilution formula, issue equity shares exclusively to Indian shareholders to finance a part of the expansion cost. Steps are being teken to give effect to this. The government has permitted the company to continue the technical collaboration with its parent company, Sandvik AB, Sweden for the additional expanded capacity under the substantial expansion licence, upon certain terms and conditions. It is gratifying to note that both the company and its collaborators, Sandvik AB, have accepted the terms and conditions laid down by the government.

Baroda Rayon

With a view to reduce the cost of polyester yarn Baroda Rayon Corporation Ltd, has decided to put its own polycondensation plant for conversion of DMT into polyester chips which was hitherto being done through outside agencies. The civil engineering work has commenced and the plant is expected to be commissioned early next year. The capital expenses of the plant would be met mainly out of internal resources and partly out of IDBI's bill rediscounting scheme.

The company has been granted additional capacity for increasing its annual nylon yarn production from 1740 MT to 2436 MT, and its polyester production from 360 MT to 576 MT per annum. The schemes will be financed out of the company's internal resources.

The synthetic filament industry has been passing through an unprecedented crisis and as such the year 1976 proved to be most difficult one for the company. The excessive rates of excise on synthetic yarn inflate the final cost of production resulting in restricting demand. Various representations have been made for a reduction in excise duty of rayon, nylon and polyester filament yarn with a view to reviving the demand and having a reasonable return on capital employed for the industry.

The rayon plant operated at full capacity during the year and the production was maintained at the same level as that of the previous year. Output of nylon yarn was also at the same level as in 1975. However in 1976, the company received an industrial licence to manufacture polyester filament yarn upto 360 MT per annum within the overall capacity of 2100 MT per annum of the nylon division. The company manufactured 261 MT of polyester filament yarn during the last eight months of the year 1976.

Poor Off-take

In view of the poor off-take of the polyester filament yarn by the textile industry and the fall in market price due to liberalised import policy in respect of polyester fibre, the company has resorted to producing more of nylon yarn in place of polyester filament yarn.

Sales during the year stood at Rs 30.47 crores as against Rs 30.43 crores in 1975. The profit after meeting all expenses but before providing for depreciation and statutory development rebate reserve recorded a sharp decline to Rs 64.74 lakhs from Rs 174.35 lakhs in 1975. After adjustments the surplus amounted to Rs 92.62 lakhs, as compared to Rs 170.17 lakhs in the earlier year. After providing Rs 83.48 lakhs to depreciation reserve and Rs 9.50 lakhs to statutory development reserve, the company has incurred a loss of Rs 36,528 in 1976. Hence no dividend either on preference or equity shares has been declared for 1976.

Ceat Tyres

Ceat Tyres of India Ltd has received clearance from both the state and central governments on its much delayed expansion proposal of adding another 160,000 units to its capacity at Bhandup. Steps are being taken to implement this expansion expeditiously.

As the company is operating at present at its full capacity the increase in the production during the next two years is not likely to exceed 10 per cent above the level of last year. It will be only in 1979 that the company would begin to obtain the benefit of higher production which is expected to increase by about 20 per cent over the present capacity.

The production of bicycle and rickshaw tyres increased by 28.70 per cent in 1976 as compared with the preceding year. The plant is expected to reach, in 1977, its full licensed capacity of two million tyres.

The company has had another successful year. In fact it had a record sales of Rs 71.93 crores in 1976. Unfortunately the profit, after taxes of Rs 109 lakhs has not matched the profit after taxes of Rs 198 lakhs of 1972 on a much lower sales of Rs 37.46 crores. The operational profits were under constant pressure due to the easy availability of automotive tyres throughout the country. Whilst there was a growth in the sales, of about 18 per cent, the gross profits increased by only 12.31 per cent and profits after tax were only marginally higher at 5.36 per cent as compared to 1975. The total profits were larger because of a net write-back of Rs 52.78 lakhs, being the provisions for payment to collaborators made in the earlier years, no longer required.

The directors have recommended the payment of a larger dividend of eight per cent for 1976. If the company's operations during the current year prove satisfactory and result in better profits it will be the endeavour of the board to maintain this dividend on the

enhanced capital resulting out of the latest issue of bonus shares, which, however, are not eligible for any dividend on the profits of the year 1976, in accordance with the terms of the bonus issue.

The main problem which faced the tyre industry during the year 1976 was the slow rate of its growth. The recession has persisted because of the depression in the road transport industry with whose fortunes the tyre industry is closely linked. The high cost of vehicles and the increase in the prices of fuel, lubricants, spare parts, etc, have seriously affected the growth of the road transport industry. Added to it, the greatly improved rail facilities available for the movement of goods, the punctuality of the trains and the lower freight charges have diverted a part of the road traffic to the railways. With the expansion of roads there is bound to be a corresponding growth in the automobile industry and the automotive tyre industry will continue to grow in the coming years.

News and Notes

The Monopolies and Restrictive Trade Practices Commission passed a 'Cease and Desist' Order in respect of **M/s Bharat Television Limited** of Hyderabad. Respondent company is manufacturing, selling and supplying television receiver sets and it had entered into agreements with distributors and dealers for sale. The notice issued to the company alleged that these agreements appeared to contain restrictive trade practices such as area allocation, resale price, maintenance, exclusive dealership, tie up of the voltage stabilisers and antenna with TV sets, restrictions on the appointment of sub-dealers, etc. The reply to the notice of enquiry had been filed and the director of investigation sent his rejoinder thereto. During the course of subsequent proceedings the counsel for respondent expressed willingness of the respondent to submit to an order under Section 37 of the act on the assumption that conditions for passing such an order existed. Commission accordingly passed an Order declaring as void such clauses of the agreements as were impugned in the notice. The company has been directed to discontinue and not to repeat restrictive trade practices referred to in the notice. The company was also directed to make it clear on the front or on the first page of the price lists issued hereafter that prices indicated in the lists were the maximum prices and lower prices could be charged. The affidavit of compliance has been required to along with the latest price list(s).

New Issues

Sivalik Cellulose Ltd. of New Delhi is setting up an integrated pulp and paper manufacturing plant at Gajraula in Moradabad district, Uttar Pradesh. This Rs 3.12 crore project will produce bleached cultural and industrial papers of high quality. The firm's industrial licence provides for an annual production capacity of 900 tons for writing and printing purposes.

The venture, promoted by Mr Inder S. Choudhrie, has obtained the necessary machinery and equipment from Norway, where it was already in operation. The plant has thus cost the Indian firm only 30 per cent of the price of a new one. The promoters are confident that this saving in fixed capital investment will be reflected favourably in Sivalik Cellulose's working costs, product pricing and profits. A state-owned firm of consulting engineers has examined the plant thoroughly and declared it in perfect working condition.

Sivalik Cellulose has retained the services of India's leading paper technologists, M/s Bhargava Consultants Pvt Ltd, to supervise and provide services relating to technical and process knowhow, and undertake the design, erection and commissioning of the entire plant. Commercial production is scheduled to begin in June 1978.

The paper manufacturing industry is capital-intensive, and the active participation of public lending institutions like IDBI, LIC, IFCI, ICICI and PICUP have enabled Sivalik Cellulose to raise loans totalling Rs 2.02 crores from these sources.

The promoters and their friends have acquired equity shares to the extent of Rs 50 lakhs while offering Rs 58 lakhs worth for public subscription. UP State Industrial Development Corporation—PICUP's share in the promotor's capital is Rs 11 lakhs.

India's per capita consumption of paper is among the lowest in the world, but with the spread of literacy and the special efforts, the government is committed to making to develop adult education the demand for this product is bound to grow rapidly in the coming years.

Against an estimated demand for 1.33 million tons a year actual domestic production might not cross 1.15 million tons. The company should accordingly encounter no difficulty in marketing its products.

With all these positive factors, shareholders in Sivalik Cellulose should be able to look forward confidently to attractive returns on their investments within a reasonable period of the plant's going on stream.

Dividend

(per cent)

Name of the company	Year ended	Equity dividend declared for Current year	Previous year
Higher Dividend			
Swan Mills	Dec. 31, 1976	5.0	2.0
Gokak Patel Volkart	Dec. 31, 1976	20.0	14.0
Same Dividend			
Alembic Chemical Works	Dec. 31, 1976	12.0	12.0
Metal Box Co. of India	March 31, 1977	Nil	Nil
Permanent Magnets	Dec. 31, 1976	Nil	Nil
Sivananda Mills	Dec. 31, 1976	10.0	10.0
New Great Eastern Spg. & Wvg	Dec. 31, 1976	12.0*	12.0
Reduced Dividend			
Finlay Mills	Dec. 31, 1976	Nil	11.0
Gold Mohur Mills	Dec. 31, 1976	Nil	10.0
Shreeniwas Cotton Mills	Dec. 31, 1976	Nil	5.0
Seven Seas	Dec. 31, 1976	Nil	10.0

***On the enlarged capital.**

Licences and Letters of Intent

THE FOLLOWING licences and letters of intent were issued under the Industrial (Development and Regulation) Act 1951 during the month of April 1977. The list contains the names and addresses of the licensees, articles of manufacture, type of licences—New Undertaking (NU), New Articles (NA), Substantial Expansion (SE), Carry on Business (COB), Shifting—and Annual Installed Capacity. Details regarding licences and letters of intent revoked, cancelled or surrendered are also given.

Licences Issued

Metallurgical Industries

M/s. R.K. Machine Tools Pvt Ltd, C-5/7, Safdarjang Development Area, New Delhi (Ludhiana-Punjab)—Steel Forgings—2500 tonnes—(COB)

M/s Kaveri Steels Ltd., 388, Rajmahal Vilas Extention, Bangalore-560016 (Banglore-Karnataka)—Cold Rolled Mild Steel Strips; Cold Rolled High Carbon Steel Strips; Cold Rolled Medium Carbon Steel Strips—Total capacity 3,000 tonnes—(COB)

M/s Snail Spanners (India) and Tools Ltd, 87, Nagdevi Cross Lane, Bombay-400003 (Bhundup-Maharashtra)—Closed Die Steel Forgings—500 tonnes (by way of diversification within the overall licensed capacity of forged Hand Tools and Industrial Knives as licensed under licence No. L/12-2/17/MEI/61 dated 27.2.1961 and Licence No. L/12-2/139/71-MEI dated 18.3.71—(NA)

M/s Bharat Forge Co Ltd, Mandhwa, Post Box No 57, Poona-41100! (Satara-Maharashtra)—Forged Rolls—1,000 tonnes—(NA)

M/s Metal Fittings Pvt Ltd, 1-C/3, New Rohtak Rd, New Delhi-110005 (Delhi)—Carbon/Alloy Stainless Steel Forged Fittings—3000 tonnes (on provisional basis), Carbon/Alloy Stainless Steel Extruded Fittings—2000 tonnes (on provisional basis)—(COB)

M/s Indo-Japan Steels Ltd, 11, Govt. Place (East) Calcutta-1 (Howrah-West Bengal)—Ingots of the following grades of steel: Mild Steel; Electrode quality carbon steels; Forging quality carbon steels: Cold-heading quality carbon steels; Hardening and Tempering quality carbon steels; Carbon, Carbon Manganese & Silico Manganese qualities of spring steels; Carbon Tools Steels; Case Hardening quality Carbon Steels; Free Cutting quality carbon sulphur steels—Total capacity 16,000 tonnes—(COB)

M/s Guest Keen Williams Ltd, 3-A, Shakespeare Sarani, Calcutta-700016 (Howrah-West Bengal)—High Tensile Bolts, Nuts, Studs and Rivets—From existing Capacity of 2400 tonnes to 4400 tonnes—(SE)

M/s Guest Keen Williams Ltd., 3-A, Shakespeare Sarani, Calcutta-700016 (Bangalore-Karnataka and Howrah-West Bengal)—Pressed Metal Components and Assemblies—1000 tonnes in each factory—(NA)

M/s Usha Martin Black (Wire Ropes) Ltd, 14, Princep Street, Calcutta-700072 (Jamshedpur-Bihar)—High Carbon, High Tensile and free cutting steel wire rods (with minimum coil weight of 400 Kgs) (for captive use)—(NA)

M/s Bharat Heavy Electricals Ltd, Hindustan Times House, 18-20, K. Gandhi Marg, New Delhi-110001 (Tiruchy-Tamil Nadu)—Seamless Steel Tubes in the sizes ranging from 14 mm to 159 mm diameter—40,000 tonnes—(NU)

M/s Meena Steels Ltd, 'Meena' Swaroop Nagar, Kanpur-208002 (Unnao-UP)—Bars, Rods and Light Structurals (To be manufactured from Cast M.S. Ingots to be produced in their own electric are furnace)—12,500 tonnes—(COB)

Electrical Equipment

M/s West Bengal Electronics Ind. Dev. Corpn. Ltd. (A Govt of West Bengal Undertaking), 225 E Acharya Jagdish Chandra Bose Road, Calcutta-700020, (Calcutta-West Bengal)—Thyristor Controlled Modular Drive Systems—200 sets of 1 to 50 KWs of which not more than 50 sets can be above 50 KWs range—(NU)

M/s Emco Transformers Ltd, 'Ararat' 89, Naginda Master Rd, Fort, Bombay-400023 (Maharashtra)—Power and Distribution Transformers (upto 220 KV) Special Transformers, Reactors etc—1,000 MVA (after expansion—(SE)

M/s NGEF Ltd, Post Bag No 3876, Bangalore-560038 (Bangalore-Karnataka)—Systems engineering for electrical equipment for steel Mills Processlines etc—50 Nos—(NA)

M/s Electronics Ltd, 7th Floor, Atma Ram House 1-Tolstoy Marg, New Delhi-1 (Faridabad-Haryana)—Fractional Horse Power motors of the range of 1/8HP to 1 HP—25,500 Nos—(COB)

M/s Siemens India Ltd, 134-A, Dr Annie Besant Rd, Worli, Bombay-13 (Bombay-Maharashtra)—Relay Groups—3,000 Nos, Tokenless Block Instruments—200 Nos, Electric Point Machines—500 Nos—(NA)

M/s Central Electronics Ltd, A Govt of India (Deptt of Science & Technology) Enterprise, NPL Campus Hillside Road, New Delhi-110012 (Meerut—UP)—Liquid Crystal Displays—25,000 Nos—(NU)

M/s Badri Narayan Saha, 266, Dr A. B. Road, Prabha Devi, Bombay.400025 (SCEPZ, Bombay-Maharashtra)—Silvered Mica Capacitor Plates—50 Million Nos. Silvered Mica Capacitor Stacked—7.5 million Nos, Silvered Mica Capacitors Dipped—7.5 million Nos—(NU)

M/s Nayar Electronics (P) Ltd, 6, St James Court, Second Floor, Marine Drive, Bombay-400020 (Nasik-Maharashtra)—Silicon Rectifiers below 30 Amps—3,00,000 pcs above 30 Amps & upto 300 Amps 20,000 pcs, Silicon Controlled Rectifiers below 30 Amps—3,00,000 pcs, above 30 Amps & upto 300—20,000 pcs, Power Transistors—5,00,000 pcs Zenner Diodes—2,00,000 pcs—(NU)

M/s Wellman (India) Ltd, Neville House, Currimbhoy Road, Ballard Estate, Bombay-400038. (SEEPZ, Bombay Maharashtra)—Core Memory Stacks—3,000 Nos—(NU)

M/s Premier Mills (CBE) Ltd, Electronics Unit, Unit No. 3, SDF Bldg, SEEPZ, Andheri East, Bombay-400096, (SCEEPZ, Bombay—Maharashtra)—Db(VU) Meters—one million Nos—(NA)

M/s Mysore Electro Chemical Works Ltd, Yeshwantpur, Bangalore-560022 (Bangalore-Karnataka)—Automotive, Heavy Duty & Aircraft Batteries—1.2 lakhs Nos (after expansion), Traction Batteries—17,500 Nos (after expansion), Stationary Batteries—30,000 Nos (after expansion)—(SE)

M/s Jyoti Switchgears Ltd, P.O. Mogar, Taluka Anand, Dist Kaira (Gujarat) (Kaira-Gujarat)—L.T. Air Circut Breakers 415V, 50 C/S with hand or motor drive incorporating under Voltage and/or shunttrip together with over lead and short circuit protection trip: 250 Amp, 400 Amp, 630 Amd (12 KA to 35 KA)—3,700 Nos (after expansion), 1250 Amp, 1600 Amp (upto 45 KA)—300 Nos (after expansion)—(SE)

M/s Mysore Electro Chemical Works Ltd, Yeshwant Pur, Bangalore-560022 (Bangalore-Karnataka)—Train Lighting Cells—10,000 Nos—(NA)

Transportation

M/s Khemka Spares and Accessories Pvt Ltd, Indian Chamber Bldgs, Esplanade, Madras-600001 (Bangalore-Karnataka)—Differential Crown Wheel and Pinion for Automobiles, Tractors and Machine Tool Industries—300 tonnes, Hypoid, Straight and Beval Gears—15,000 sets—(NU)

Shri Manubhai H. Thakkar, Partner, Ashwin Industries Samlaya, Dist Baroda (Gujarat) (Baroda—Gujarat)—Passenger Cars—25,000 Nos—(NU)

M/s Kirloskar Oil Engines Ltd, 13, Laxman Rao Kirloskar Road, Kirkee, Poona (Ahmednagar, Poona—Maharashtra)—Bimetal Strips—800 tonnes, Bimetal bearings—6 million Nos (existing)—12 million Nos (after expansion)—(NA/SE)

Industrial Machinery

M/s Associated Textile Engineers, 43, Dr V.B. Gandhi Marg, Bombay-400023 (Ahmedabad-Gujarat)—Bale Feeding Conveyors BBT—95 Nos, Reserve Bale Conveyors BR 3 for 4-5 bales each—95 Nos, Balemat BRI/5 with 5 opening points—19 Nos, Transport Fan MTV 4 with variable gear—19 Nos, Tuft Feeding Installation EXACTFEED FBK 8—19 Nos, Transport Fan MTV-T-56/R 250—19 Nos, DUOMAT Filters SF 123/2—38 Nos, Electrical Control EGS—19 Nos, Card Control—150 Nos, Double Cotonia—19 Nos, Combined Hard-Waste Openers—19 Nos—(NU)

M/s T. Maneklal Mfg Co Ltd, Vaswani Mansions, Dinshaw Vachha Road, Bombay-400020 (Ahmedabad-Gujarat)—High Efficiency Sectional Warping Machine—6 Nos—(NA)

M/s Shantilal Mohanlal Shah, Behind La Gajjar Chambers, Ashram Road, Ahmedabad-380009 (Ahmedabad-Gujarat)—Comber needless for the cotton textile industry—120 mill Nos, Comber needless for the woollen textile industry—30 mill Nos—(NU)

M/s Walchandnagar Industries Ltd, Walchandnagar, Dist Poona (Poona-Maharashtra)—Nuclear and Chemical Machinery—3000 tonnes (after expansion)—(SE)

M/s Rampur Engineering Co Ltd. 4634, Ajmeri Gate, Delhi-110006 (Delhi)—Belt Conveyors, Bucket Elevators and Screw Conveyors and others—1,200 tonnes (after expansion)—(SE)

Machine Tools

M/s Adisons Precision Instruments Mfg Co Pvt Ltd, 142, Kapadia Bldg, Mody Street, Fort, Bombay (Thana-Maharashtra)—Micrometers—36,000 Nos, Vernier Calipers—36,000 Nos, Dial Gauges—36,000 Nos, Depth Gauges—2,400 Nos, Height Gauges—2,400 Nos—(NU)

M/s Indian Precision Engineers, Gurusannidhi Shankara Park, Bangalore-4 (Bangalore-Karnataka)—Etectro-Magnetic Clutch Brake-Multi-Disks—5,000 Nos, Electro-Magnetic Clutch Brake-Single Disks—2,000 Nos, Other Allied Electro-Magnetic Equipment/units—1,000 Nos—(NU)

Earth Moving Machinery

M/s Larsen & Toubro Ltd, L&T House, Narottam Morarjee Marg, Ballard Estate, Bombay-400035 (Bangalore-Karnataka)—Self-propelled vibratory compactors—100 Nos, Heavy duty towed compaction equipment—100 Nos—(NA)

Miscellaneous Industries

M/s Yadava Steel and Allied Industries Ltd, 27/82/1, Vellat Lane, Trichur-1 (Kerala) (Trichur-Kerala)—Safety Razor Blades—120 mill Nos—(NU)

M/s Sutlej Tools Ltd, Rainak Bazar, Jullundur City (Pb) (Hoshiarpur-Punjab)—Forged Hand Tools—2500 tonnes—(NU)

Industrial Instruments

M/s Larsen and Toubro Lid, L&T House, P.O. Box No 278, Ballard Estate, Bombay (Bombay-Maharashtra)—Steel Plant Valves—40 Nos—(NA)

M/s Audco India Ltd, L&T House, Ballard Estate, Bombay-400038 (Madras—T.N.)—Cast and forged steel and stainless steel gate, globe and check valves and valves for water services in ferro steel size range 1/4″ to 16″ (Pressure ratings range ASA 150 lbs to 800 lbs)—25,000 Nos (after expansion)—(SE)

M/s Karnataka Jewels Pvt Ltd, 3, 'Niketan' Sudershan Society-2, Naranpura, Ahmedabad-380013 (Bangalore-Karnataka)—Watch Jewels—60 lakh Nos—(NU)

Chemicals (Other than Fertilizers)

M/s Bombay Oxygen Corpn Ltd, 5, Convent Street, Colaba Bombay-400001 (Thana-Maharashtra)—Oxygen Gas—1.0 MCM—(SE)

M/s Indian Oxygen Pvt Ltd, Oxygen House, P-34, Taratala Road, Calcutta-53 (Jamshedpur-Bihar)—Argon Gas—1,22,400 cu metres—(NA)

M/s Bharat Pulverising Mills Pvt Ltd, Hexamar House, 28 Sayani Road, Bombay-25 (Maharashtra)—Endosulphan Technical—1200 tonnes—(NA)

M/s Cyanamid India Ltd, Nyloc House, 254-D2, Dr A.B Road, Post Box No 9109, Bombay-400025 DD (Bulsar-Gujarat)—Phorate (Thimet) Technical—450 tonnes, Accothion (Fenitrothion) technical—200 tonnes—(NA)

M/s Andhra Sugars Ltd, Venkatarayapuram, Tanuku-534211 (A.P.) (West Godavari-A.P.)—Potassium Hydroxide (Caustic Potash)—5,000 tonnes—(NA)

M/s Gujarat State Fertilizers Co Ltd, P.O. Fertilizernagar-391750 (Gujarat State) (Baroda-Gujarat)—Plastic Grade Nylon Chips—4,000 tonnes (after expansion)—(SE)

M/s National Rayon Corpn Ltd, P.B. No 200, Ewart House, Homy Mody Street, Fort, Bombay-400023 (Thana-Maharashtra) Sodium Sulphide (by-product in the manufacture of rayon filament yarn)—360 tonnes—(COB)

M/s Utkal Gases Ltd, P-21/22, Radha Bazar Street, Calcutta-700001 (Dhenkanol-Orissa)—Oxygen Gas—0.378 MCM, Acetylene Gas—0.127 MCM—(NU)

Drugs and Pharmaceuticals

M/s Chemical Industrial and Pharmaceutical Laboratories Ltd, 289, Bellasis Road, Bombay Central, Bombay-400008 (Maharashtra)—Mesterelone Tablets Each tablet contains Mesterelone 25 mg—1 mill tablets, Mebendazole Tablets Each tablet contains Mebendazole 100 mg—8 mill tablets, Pentazocine tablets Each tablet contains Pentazocine Hcl 25 mg—4 mill tablets, Pentazocine Injections (1 ml) Each 1 ml contains Pentazocine as lactate 30 mg—2 mill ampoules, Miconidazole Cream (30 g. tube) Each 100 gm contains Miconidazole Nitrate 2 g.—2.5 lakh tubes (7.5 tonnes cream)—(NA)

M/s Albert David Ltd, 15, Chittaranjan Avenue, Calcutta-700072 (Calcutta-West Bengal)—Metronidazole B.P.—15 tonnes—(NA)

M/s Ranbaxy Laboratories Ltd. Okhla, New Delhi-110020 (Mohali-Punjab and Okhla New Delhi)—Doxycycline and its formulations—2.5 tonnes—(NA)

Textiles

M/s Mahajaa Woollens Private Ltd, G.T. Road, Panipat-132103 (Panipat-Haryana)—Shoddy Yarn—600 spindles—(NU)

M/s Tin Containers & Printers (Pvt) Ltd, 3711/14, Netaji Subhash Road, Darayaganj, Delhi-6 (Rewari/Gurgaon-Haryana)—Worsted Yarn—1200 spindles—(NU)

Shri N.K. Sureka, BR-69, Greater Kailash, New Delhi-48 (Gurgaon-Haryana)—Worsted Yarn—1200 spindles—(NU)

M/s Bhilwara Processors Ltd, 19, Community Centre, East of Kailash, New Delhi (Bhilwara-Rajasthan)—Processing of synthetic fabrics—15 lakh metres—(NU)

Fermentation Industries

M/s Ramon Distilleries Ltd, 169, Backbay Reclamation, Ramon House, Bombay-400020 (Aurangabad-Maharashtra)—Indian Made Foreign Liquors and Country Liquor—1100 bulk kilolitres (on provisional basis)—(COB)

M/s Panipat Cooperative Sugar Mills Ltd Distillery Unit, Panipat (Haryana) Panipat-Haryana)—Indian Made Foreign Liquors and Country Liquor—5645 bulk kilolitres—(COB)

M/s Yezdi Distilleries, Bannimantap Layout, Mysore-570007 (Mysore-Karnataka)—Indian Made Foreign Liquor—709 bulk kilolitres—(COB)

Food Processing Industries

M/s Andhra Pradesh Child Nutrition Council, Ready-to-Eat-Food Processing Factory, Nacharam Industrial Estate, Nacharam, Hyderabad-Andhra Pradesh)—SEV or MURKU (High Protein Food)—7.000 tonnes—(NU)

M/s Mohan Meakin Breweries Ltd, Mohan Nagar, Ghaziabad (UP) (Gaziabad-UP)—Canned fruit juices nectars, canned vegetables, etc—3,000 tonnes—(NA)

Letters of Intent

Electrical Equipment

M/s The Indian Cable Company Ltd, P.O. Box No. 35, 9A, Connaught Place, New Delhi-110001 (Poona-Maharashtra)—PVC Power Cables—800 KM—(SE)

Industrial Instruments

M/s Premier Mills (CBE) Ltd, Electronics Unit, Unit No. 3, SDF Bldg, SEEPZ, Andheri East, Bombay-400096 (SEEPZ-Maharashtra)—Db (VU) Meters—1 million nos.—(NU)

Change in Names (Owners or Undertakings)

(Information pertains to particular licences only)

From M/s K.G. Khosla & Co Pvt Ltd, New Delhi to M/s K.G. Khosla Compressors Ltd, New Delhi

From M/s Assam Industrial Development Corporation Ltd, Shillong to M/s Cachar Sugar Mills Ltd, Kannachal Road, Silpukhuri, Gauhati-781001 (Assam)

From M/s Jaya Shree Textiles & Industries to M/s The Indian Rayon Corporation Ltd

From M/s The UP Export Corporation Ltd, Kanpur to M/s Bhadohi Woollens Ltd, Bhadohi

Licences Revoked, Cancelled or Lapsed

(Information pertains to particular licences only)

S/Shri K. Dharma Rao and R.C. Mitra, M/s Circar Steel (P) Ltd—M.S. Ingots of all grades—(Revoked)

M/s Bharat Steel Tubes Ltd, Allahabad Bank Bldg, 17, Parliament Street, New Delhi—Forged Hand Tools—(Cancelled)

Shri H.K. Abrol, M/s Abrol Engg Co (HRC), 13, Birbal Road, Jangpura Extn, New Delhi—Electrical Switchgears etc —(Revoked)

Shri R.K. Agarwal, 117/491, Pandu Nagar, Kanpur-208005 (UP)—Printing and Writing Paper etc—(Cancelled)

M/s The Indian Sugar & General Engg Corporation, Paras Cinema Bldg, Nehru Place, New Delhi-110024—High Pressure Thermal Power Station Boilers upto 200 MW with Pressure of Steam 650 lbs to 2000 lbs PSI—(Cancelled)

M/s Alwar Alloys and Steel (Private) Ltd—Mild Steel Ingots of all grades—(Revoked)

M/s Ballarpur Industries Ltd, New Delhi—Newsprint and Pulp—(Revoked)

Letters of Intent Lapsed or Cancelled

(Information pertains to particular letters of intent only)

Shri V. Jagannathan, 341, Avanashi Road, Pappanaichenpalayam, Coimbatore (Tamil Nadu)—Synthetic rubber cots and synthetic rubber aprons—(Lapsed)

Shri Raj Mohan Singh, B-66, Greater Kailash, New Delhi (Haryana)—Synthetic rubber cots etc—(Lapsed)

M/s Dunlop India Ltd, Bank of Baroda Bldg (7th Floor), Parliament Street, New Delhi-110001 (Goa, Daman & Diu)—Steel Cord Belting, textile reinforced rubber conveyor belting and Fan and Vee belts—(Lapsed)

Shri K.P. Gopinath, Krishna Vilas, Thycaud, Trivandrum-695014 (Maharashtra)—Electrically operated cashregisters—(Lapsed)

Shri R.K. Bagrodia, World Trade Centre, 14/1B, Ezra Street, Calcutta-1 (Rajasthan)—Winding Wires—(Lapsed)

Shri R.P. Shah, Steel & Pipe Traders, 519, Loha Bhavan, P. D'Mello Road, Bombay-400009 (Andhra Pradesh)—Gelatine —(Lapsed)

Shri M.L. Rathi, 7, Mysore House, Civil Lines, Jaipur (Rajasthan)—Ossein and dicalcium phosphate—(Lapsed)

M/s Synthetic Detergents Ltd, Kanul-670562 Cannanore Dist. (Kerala) (Kerala)—Synthetic Detergents—(Lapsed)

Shri Sampat M. Bafna, C-33, Yamuda Path, Beni Park, Jaipur-6 (Kajasthan)—Shot Blasting Machines—(Lapsed)

Shri P. Venkatesan, 13/240, Dewan Bahadur Road, R.S. Puram, Coimbatore-2 (Tamil Nadu)—Tungsten Carbide Tips and Tipped Tools—(Cancelled)

M/s Akron Rubber Industries, 134, Dhirubhai Parikh Marg, Kalbadevi Road, Bombay-400002 (Maharashtra)—Scooter tyres and tubes—(Cancelled)

M/s Atul Products Ltd, Atul Western Railway, Dist. Bulsar (Gujarat) (Gujarat)—Diuron, CIPC & IPC—(Lapsed)

Shri Govind Das Daga, 5, Temple Road, Civil Lines, Nagpur-1 (Maharashtra)—Styroflex Capacitors—(Lapsed)

M/s ACC-Vickers-Babcock Ltd, Express Towers, 18th Floor, Nariman Point, Bombay-400021 (Karnataka)—Plain Carbon and Alloy Steel Castings and Grinding Media—(Cancelled)

Shri Sudhir Sareen, C/o M/s Link Chains India Ltd, 75-E, Himalaya House, 23, Kasturba Gandhi Marg, New Delhi-110001 (Haryana)—Roller Chains—(Lapsed)

M/s Merchants India Ltd, Rani Baug, Rewa, MP (MP)—Power Capacitors—(Cancelled)

M/s Kothari Sugar and Chemicals Ltd, Kothari Buildings, Post Box No. 3309, 20. Nungambakkam High Road, Madras-600034 (Karnataka)—Kraft and Wrapping Paper—(Lapsed)

M/s Chandrakant Harishanker, No. 2A, Maker Bhavan No. 2, 18. New Marine Lines, Bombay-400018 (MP)—Tantalum Capacitors—(Lapsed)

Shri P. Raghunatha Reddy, 10-5-64/5/4, Sriramnagar, Masad Tank Area, Hyderabad-500028 (Andhra Pradesh)—Tyre and Tube Valves and Cores etc—(Lapsed)

M/s Sylvania & Laxman Ltd, 68/2, Najafgarh Road, New Delhi (Delhi)—Glow Bottles & Starters—(Lapsed)

M/s Bengal Coal Co Ltd, 8, Clive Row, Calcutta-1 (West Bengal)—Cresols and Sodium Sulphite—(Lapsed)

M/s Philips India Ltd, Shivsagar Estate, Block 'A' Dr. Annie Besant Road, Post Box No. 6598, Bombay (Maharashtra)—Carbon Resistor Caps—(Revoked)

Shri N. Vishnu Vardhan Reddy, Panchvaty. 3-7-226/A, Himayat Nagar, Hyderabad-29 (Andhra Pradesh)—Thinner Gauges Winding Wires—(Lapsed)

M/s Arvind Distillery & Chemicals Ltd, 1/30, Pantheon Road, Madras-600008 (Tamil Nadu)—Acetic Acid—(Lapsed)

M/s Kerala State Electronics Development Corporation Ltd, Keltron House, Vellayambalam, Trivandrum-695001 (Kerala) —Monolythic Capacitors—(Lapsed)

M/s Elcar Corporation, 229, New Market, Chikpet, Bangalore-560053 (Karnataka)—Carbon & Metal Film Resistors —(Lapsed)

M/s Stewarts and Lloys of India Ltd, 41, Chowringhee Road, Post Box No. 270, Calcutta (Tamil Nadu)—Fabricated Pipeworks and Tubular Structurals—(Lapsed)

Foreign collaborations

The union government approved 131 applications for foreign technical/financial collaborations during the quarters October-December, 1976 and January-March, 1977. The number of cases Involving financial participation was 16. Of the total number, as many as 24 proposals had export-orientation.

The number of proposals approved in the quarter October-December, 1976, was 76, of which 10 involved financial participation. In the next quarter, January-March, 1977, 55 cases were approved, of which six involved financial participation.

The following is the list of the foreign collaboration arrangements approved during the six months to March 31, 1977.

(October-Decemebr 1976)

Sl. No.	Name of the Indian company	Name of the foreign collaborator	Item of manufacture
1	2	3	4
		INDIA—AUSTRALIA	
1.	M/s. Engine Clinic & Service Engineers Pvt. Ltd., 2/155 Mount Road, Madras-600002.	M/s. Warren & Brown Co., 119, Ballarat Road, Footscray, P.O. Box. No. 235, Victoria, Australia.	W.B. Sealer.
*2.	M/s. Newera Plasteel Pvt. Ltd., H.No. 2175, Sector 22-C, Chandigarh. (Composite case)	M/s. Astor Plasteel Windows Pvt. Ltd., Australia.	Steel Reinforced PVC products.
		INDIA—AUSTRIA	
3.	M/s. Bharat Forge Co. Ltd., Mundhwa, Poona-411036.	M/s. Vereinigte Osterreichische Eisen-Und Stahlwerke AG., Austria.	Forged Rolls.
		INDIA—DENMARK	
4.	M/s. E.I.D. Parry (India) Ltd., 'Dare House', Parry's Corner, Madras-600001.	M/s. Haldor Topse A/S, Nymolievej 55, P.O. Box, 213, DK-2800 Lyngby, Copenhagen, Denmark.	Methanol from re-vamped Ammonia plant.
*5. (F)	M/s. Orissa Cement Ltd., B-45/47, Connaught Place, New Delhi-110001. (Composite case)	M/s. Vitrohm Electronics Ind., Denmark.	Metal Film Resistors.
6.	M/s. Vulcan-Laval Ltd., Mustafa Building, 7A, Sir Phirozeshah Mehta Road, Bombay-400001.	M/s. Anhydro A/S, 8, Ostmarken, DK-2860, Soborg, Copenhagen, Denmark.	Falling film evaporation, spray drying flash, drying plants.
		INDIA—FEDERAL REPUBLIC OF GERMANY	
*7. (F)	M/s. S.N. Fasteners Ltd., 7, Forest Park, Bhubaneshwar-751009.	M/s. Peltzer & Ehlers, 414 Krefeld, Postfach 3173, FRG	High Tensile Fasteners.
8.	M/s. Cable Corporation of India Ltd., Laxmi Building, 6, Sheriff Vallabhdas Marg, Bombay-400038.	M/s. Siemens AG, Wittelsbacherplatz 2, D 8000, Muenchen 2, FRG.	Cross Linked Polethylene Cables of 11 KV and above.
9.	M/s. Dalal Engineering Ltd., 36/37, Jolly, Maker Chambers II, Nariman Point, Bombay-400021.	M/s. Obermaier & Cie, Verwaltungs-GmbH, Neustadt/Weinstrasse, FRG.	Turbo-Rapid type of Dyeing Plants.

('F') Indicates cases involving financial participation also. ('*') Indicates cases with export orientation).

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1	2	3	4
*10. (F)	Mr R.R. Bareja, 10/1, Princep Street, Calcutta-13.	M/s. Arnold Knipping, GmbH, 5270, Gumersbach, FRG.	Self Tapping Sheet Metal Screws.
*11.	M/s. Electrothermics Pvt. Ltd., 7/4, KM Stone, Nagarjunasagar Road, Karmanghat, Saroor Nagar Post Office, Hyderabad-500036. (Composite case).	(i) M/s. Tako Granit of FRG. (ii) M/s. Garl Meyer of FRG.	Granite Slabs.
*12.	M/s. Pfeiffer-Rao (India) Pvt. Ltd., Plot No. 3B(N.P) Industrial Estate, Ambattur, Madras-98.	M/s. Pfeiffer, GmbH, Ettlingen, FRG.	Fabricating Machines, Vacuum Vibrating Apparatus, Picovex-Coats Machines and Moulds.
*13.	M/s. Greaves Cotton & Co. Ltd., 1, Dr. V.B. Gandhi Marg, Fort, Bombay-400023. (Composite case).	M/s. Binder Magnetic GmbH, FRG.	Electro magnetic multi disc clutches and brakes.
14.	M/s. Guest Keen Williams Ltd., 3A, Shakespeare Sarani, Calcutta-700016. (Composite case)	M/s. Hoesch Rothe Erde-Schmiedag AG of F.R.G.	Double Shank Elastic Rail Spike.
15.	M/s. Engineering Projects (India) Ltd., Kailash, Kasturba Gandhi Marg, New Delhi-110001.	M/s. Braunschweigische Maschinenbauanstalt BMA, 33, Braunschweig, Post Box 3225, Federal Republic of Germany.	Milling Tandems for Sugar Plants.
16.	M/s. Westerwork Engg. Ltd., 5-D Vulcan Insurance Bldg., Veer Nariman Road, Churchgate, Bombay-400020.	M/s. Ludwig-Offen-Indugas Industrie Offenanlagen, GmbH, 43, Essen, Moltkepltaz 1, Postschliessfach 1046, FRG.	L.P.G. fired continuous Roller Hearth Qennch Annealing Furnace for Stainless Steel Seamless Tubes Plant.
17.	M/s. Marshall Sons & Co. (Mfg.) Ltd., Marshall Building, 9, Second Line Beach, Madras-1. (Composite case).	M/s. Demag, Baumaschinen, GmbH, FRG.	Self-Propelled Hydraulic Mobile Cranes.
18.	M/s. K.G. Khosla Compressors Pvt. Ltd., 1, Deshbandhu Gupta Road, New Delhi.	M/s. Gutehoffnungshutte, Sterkrade AG, Oberhausen, FRG.	Screw type Air Compressors.
*19.	M/s. United Carbon India Ltd., MIDC Plot No. 3, Trans, Thana Creek Area, Thana, Belapur Road, Maharashtra.	M/s. Industries Chemie Thoma GmbH and Co. KG, Federal Republic of Germany.	Cresols and Related Products.
20.	M/s. Bharat Bijlee Ltd., Electric Mansion, Appasaheb Marathe Marg, Prabhadevi, Bombay-400025.	M/s. Transformatoren Union AG, Stuttgart, FRG.	Special Types of Transformers.
21.	Mr S.M. Maurri, B-7/15/1, Safdarjung Enclave, New Delhi-110016.	M/s, Hoxtersche Gummiladenfabrik, Emil Atntz KG, 347 Hoxterl, Postfach, 10364, FRG.	Fan & V Belts.
22.	M/s. K.S.B. Pumps Ltd., Bombay-Poona Road, Pimpri, Poona-411018. (Composite case).	M/s. K.S.B., of FRG.	Special Pumps.
23.	M/s. West Bengal Alloy Steel Ltd., 23-A, Netaji Subhas Road, Calcutta-700001.	M/s. Edelsthalwerke Buderus, AG, 63300 Wetzlar, FRG.	Alloy Steel Strips and other Rolled Products.
*24. (F)	Dr. Mihir Chatterjee, C-8, Datta Guri Colony, Deonar, Bombay.	M/s. Nattermann & Cie GmbH, Nattermann Allee 5, Cologne 30, FRG.	Senna Extracts.
25.	M/s. Walchandnagar Industries Ltd., Post Walchandnagar, Distt., Poona-413114.	M/s. Heinz Lehmann Co. Ltd., FRG.	Bigger Sizes of Centrifugal Machines.
*26.	M/s. Western Mechanical Industries Pvt. Ltd., 'Industry Manor', Near Century Bazar, Bombay-400025.	M/s. Maschinenfabrik Augsburg Nurnberg Aktiengesellschaft, Werk Nurnberg, 8500 Nurenberg 115, Abholfach FRG.	Steel Works Cranes.

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1	2	3	4
27.	M/s. Bengal Electric Lamp Works Ltd., Fairilee Place, Calcutta-1.	M/s. Nikolaus Sorg, GmbH, FRG.	Glass Shells and Glass Tubings.
28.	M/s. Precision Bearing India Ltd., Nariman Point, Bombay-400021.	M/s. G.u.j. Jaeger GmbH, FRG.	Special Ball Bearings.
		INDIA—FRANCE	
29.	M/s. Larson & Toubro Ltd., L&T House, Ballard Estate, Bombay-400038. (Composite case)	M/s. UNELEC of France.	Moulded Case, Air Circuit Breakers
30.	M/s. Larsen & Toubro Ltd., L&T House, Ballard Estate, Bombay-400038. (Composite case).	M/s. POCLAIN S.A., France.	Hydraulic Excavators of higher capacity upto 4.2 cubic metres.
31.	M/s. The Aluminium Industries Ltd., No. 1, Ceramic Factory Road, Kundara (Kerala)	M/s. Delle-Alsthom, 130, Rue Leon Blum, 69611 Villeurbanne, France.	Various types of relays.
	INDIA—GERMAN DEMOCRATIC REPUBLIC		
32.	M/s. New Bharat Engineering Works (Jamnagar) Pvt. Ltd., Pandit Nehru Road, Jamnagar-361002.	M/s. VEB Werkzeugmaschinenkombinat "Fritz Heckert" 9030 Karl-Marx-Stadt. Jagdschankenstr, 17, GDR.	Horizontal Boring and Milling Machine Spindle dia 80 mm.
33.	M/s. National Instruments Ltd., 1/1-Raja Subodh Chandra Mullick Road, Calcutta-700032.	M/s. VEB Fienmess Dresden, DDR 8023, Dresden, Kleiststr 10, P.O.B. 31, GDR.	Scale Reading Devices.
34.	M/s. Hindustan Photo Films Mfg. Co. Ltd., Ootacamund-5.	M/s. VEB Film Fabric Wolfen-Foto Chemisches, Kombinat Wolfen GDR.	Roll Films.
35.	M/s. Tamil Nadu Industrial Development Corporation Ltd., 150-A, Annasalai, Madras-600002.	M/s. W.M.W. Export Import DDR-104 Berlin, Chansseestr 111-112, (East Berlin) GDR.	Various types of bearings like cyllinderical roller ball & taper roller bearings.
		INDIA—NETHERLANDS	
*36. (F)	M/s. Repetition Parts Pvt. Ltd., L.B. Shastri Marg, Bhandup, Bombay-400078.	M/s. Altap B.V., Holland.	High Speed Steel Conical Cutters, Die-Sinking Cutter, End Mills and Reamers etc.
37.	M/s. Philips India Ltd., Shivsager Estate, Block 'A', Dr. Annie Besant Road, Worli, Bombay-400018. (Composite case).	M/s. Philips of Holland.	Component Wires.
		INDIA—ITALY	
*38. (F)	M/s. Kareemsons Pvt. Ltd., Ramanagaram-571511, Bangalore Distt. (Karnataka State). (Composite case).	M/s. Societa Per La Filatura, Italy.	Silk Tops.
39.	M/s. E.I.D. Parry (India) Ltd., "Dare House", Parry's Corner, Madras-600001.	M/s. Tecnimont S.P.A., Via le Monte Grappe 3, Milano, Italy.	Sodium Tripoly Phosphate.
		INDIA—JAPAN	
40.	M/s. Universal Electrics Ltd., 9/1 R.N. Mukherjee Road, Calcutta-700001.	M/s. Mitsubishi Electric Corpn., Japan.	Relays.
41.	M/s. Vajragunak Pvt. Ltd., 362, A.P.O. Uchagaon, Distt. Kolhapur (Maharashtra).	M/s. Art Metal Mfg. Co. Ltd., No. 14-5, 6 Chome Ginza, Chuo-Ku, Tokyo.	Pistons and Piston Rings.
		INDIA—POLAND	
42.	M/s. National Instruments Ltd., 1/1, Raja Subodh Chandra Mullick Road, Calcutta-700032. (Composite case).	M/s. METRONEX, Poland.	Domestic Gas Meters

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	2	3	4
		INDIA—SWEDEN	
43.	M/s. Jessop & Co. Ltd., 63, Netaji Subhas Road, Calcutta-700001.	M/s. Hagglund Und Soner of Sweden.	Electric Hydraulic Ship Deck Cranes.
44.	M/s. Modi Arc Electrode Co., Prop. Modi Industries Ltd., Modinagar (UP).	M/s. ESAB, Box 8850, S-40271, Gothenberg, 8, Sweden.	Special Welding Electrodes.
45.	M/s. Sandvik Asia Ltd., Bombay-Poona Road, Poona-411012.	M/s. Sandvik AB of Sweden.	Tungsten Carbide Products.
		INDIA—SWITZERLAND	
46.	M/s. Vishal Chemical (India) Ltd., 2, Flag Staff Road, Delhi-110054.	M/s. Unipektin A.G., Eschenz CH-8034 Zurich, Dufourstrasse 48, Switzerland.	Modified & Refined Guar Gum and Derivatives.
47.	M/s. Jayna Time Industries Pvt. Ltd., 7/25, Daryaganj, New Delhi.	M/s. Enicar S.A., Switzreland.	Watches
48.	M/s. Eutectic Welding Alloys of India Ltd., L&T House, Bombay-400038.	M/s. Institute De Recherches Technologiques Et. Industrielles, S.A., 30, Boulevard Peroller, Fribourg, Switzerland.	Automised Metal Powder Alloys.
49.	M/s. Kothari (Madras) Ltd., Kothari Bldg., 20, Nungambakkam High Road, Madras (Tamil Nadu).	(1) M/s. Blanchut & Bortrand Consulting Engineers, 2 Rue Grenus, Geneva, Switzerland. (2) M/s. Voemard Machines Co. S.A., 2301 LA Chaux-de-Founds, Switzerland.	Wrist Watches.
50.	M/s. T. Maneklal Manufacturing Co. Ltd., Vaswani Mansions, Dinshaw Vachha Road, Bombay-400020.	M/s. Sam Vollenweider Ltd., Textile Machinery Works, 8810 Horgen, Switzerland.	Cropping & Shearing Machines, Pearless Shearing Machine & Peerless Shearing Lines etc.
		INDIA—UK	
51.	M/s. Synthetics & Chemicals Ltd., 7, J. Tata Road, Bombay-400020.	M/s. Croda Synthetic Chemicals Ltd., Cowick Hall, Snaith Goole, North Humberside, UK	Vinyl Pyridine Monomer.
52.	M/s. Advani Oerlikon Ltd., Radia House, 6, Kaikhushroo Dubhash Marg, (Rampart Row), G.P.O. Box-1546, Bombay-400001. (Composite case)	M/s. Cooperheat, England (UK).	Equipments and Accessories for Heat Treatment of Welded Structures etc.
53.	Mr Jyoti Ghosh, Managing Director, Management Advisory & Development Services Pvt. Ltd., 95, Jor Bagh, New Delhi-110003. (Composite case).	M/s. Avon Heat Transfers Ltd., UK	Thermo Print Paper.
54.	M/s. The General Electric Co. of India, 'Magnet House', 6, Chittaranjan Avenue, Calcutta-700072.	M/s. The General Electric Co. Ltd., 1, Stanhope Gate, London W1., UK.	Diesel Alternators.
55.	M/s. Bata India Ltd., 30, Shakespeare Sarani, Calcutta-700017.	M/s. Bata Development Ltd., 151 Oxford St., London, UK.	Leather Footwear etc.
56.	M/s. Punjab State Indl. Development Corpn. Ltd., Sector 17-A, Chandigarh-160017.	M/s. Desoutter Brothers Ltd., The Hyde, Hendon, London NW 6, ND England.	Portable Electric Tools.
57. (F)	Mr M.H. Malkani, Flat 108, Tivoli Court, Calcutta-700019.	M/s. Compair International Ltd., The Grove, Slough, Berkshire, England.	Sophisticated Fluid Power Equipment.
		INDIA—USA	
58.	The Government Electric Factory, Mysore Road, Bangalore-560026. (Composite case)	M/s. Westinghouse Electric Corporation, USA.	H.V. Instrument Transformers.

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1	2	3	4
59.	M/s. Ushamil Associates Pvt. Ltd., K-40, Connaught Circus, New Delhi-110001.	M/s. Pennsylvania Crusher Corpn., Box 100, Broomall, Penny 19008, USA.	Materials Reduction Equipment.
60.	M/s. Indian Core Oils, Plot No. 53, Sector No. 6, Faridabad.	M/s. Delta Oil Products Corporation, 6263, North Teutonic Avenue, Milwaukee, Wis, 53209, USA.	Air Setting Silicate Binders (Foundr Chemicals).
*61.	M/s. Shriram Pistons & Rings Ltd., 23, Kasturba Gandhi Marg, New Delhi-100001.	M/s. Muskegon Piston Ring Company, 1839 Sixth Street, Muskegon, Michigan, USA.	Piston Rings.
62. (F)	M/s. Gabriel India Ltd., S-304, L.B. Shastri Marg, Mulund, Bombay-400080.	M/s. Federal Mogul Corpn., P.O. Box No. 1966, Detroit, Michigan 48235, USA.	Bimetal Strips and Bimetal Bearings Bushes and Thrust Washers.
63.	M/s. Eastern Abrasives Ltd., P. 241, Lake Road, Calcutta. (West Bengal).	M/s. Carborundum Co., USA.	Coated Abrasives.
64.	M/s. Cutler-Hammer India Ltd., 38, Netaji Subhas Road, Calcutta-700001.	M/s. Cutler-Hammer World Trade Inc, 4201 N 27th Street, Milwaukee, Wisconsin 53216, USA.	Switchgear, Motor Control Gear, Electrical/Electronic Refrigeration & Air Conditioning Controls etc.
65.	M/s. Synthetics & Chemicals Ltd., 7, J. Tata Road, Bombay-400020.	M/s. W.R. Grace & Co. 1114, Avenue of Americas, New York, New York 100316, USA.	Butadiene Catalyst.
66.	M/s. Mewat Metal Powders (India) Pvt. Ltd., Harish Chambers, 313/19, Samuel Street, Bombay-400003.	M/s. American Cyanamid Company, Wayne, New Jersey 07470, USA.	Dioyna Diamide etc.
67.	M/s. Khusiram Tarachand Pvt. Ltd., 9, Altamount Road, Bombay-400026. (KFTZ case)	M/s. Miner Enterprises Inc., International Division, Chicago, Illinois, USA.	Draft Gears and Buffers.
68.	M/s. Synthetic & Chemicals Ltd., 7/J. Tata Road, Bombay-400020.	M/s. Uniroyal International (Division of Uniroyal Inc. USA), Oxford Management & Research Centre, Middlebury, Connecticut 06749, USA.	Vinyl Pyridine Latex.
69.	M/s. Bharat Heavy Electricals Ltd., 18-20, Kasturba Gandhi Marg, New Delhi-110001.	M/s. Airpreheater Company Inc., USA.	Tri-sector Regenerative Air Pre-Heaters.
70.	M/s. Karnataka Vidyuth Karkhane Ltd., Post Box. No. 579, Mysore Road, Bangalore-26. (Composite case).	M/s. Westinghouse Electric Corpn., USA.	HV oil impregnated type condense bushings from 72 KV to 420 KV range.
71.	M/s. Wadco Tools Pvt. Ltd., 8-Candy House, Mandik Road, Colaba, Bombay-400039.	M/s. Stewart Warner Corpn., USA.	Pneumatic and Power Tools.
72.	M/s. Merchants India, Bani Baug, Vill: Chorhatta, Rewa (MP).	M/s. General Electric Co., International Licensing Deptt., 570 Lexington Avenue, New York, (USA.).	Polypropylene Film Power Capacitors H.T.
73.	M/s. Carborundum Universal Ltd., 11/12 North Beach Road, Madras-600001.	M/s. Carborundum Co., Niagara Falls, USA.	Bonded and Coated Abrasives.
*74. (F)	Mr Hariram K. Barot, Chamanlal Park, Panchwati, Ambawadi, Ahmedabad-380006.	M/s. General Mills Chemicals Inc., 4620, W.77th Street, Minneapolis, Minnesota, USA.	Guar-Gum Pulverised & Treated and Modified Blends.
*75.	M/s. General Foundries Ltd., White Field Road, Bangalore.	M/s. Tectron Inc., 3361, La Cienega Place, Los Angeles, California, 90016, USA.	Iron and Steel Castings.

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	2	3	4
		INDIA—USSR	
76.	M/s. Hindustan Steel Ltd., Ranchi (Bihar).	M/s. Tiazhpromexport, Moscow (USSR).	Slab Casting Machines.

ABSTRACT

1.	Approvals involving financial participation	10
2.	Approvals involving only technical collaboration	66
	TOTAL	76@

@ Including 16 Composite cases and 1 KFTZ case.

(January-March 1977)

Sl. No.	Name of the Indian company	Name of the foreign collaborator	Item of manufacture
1	2	3	4
		INDIA—CANADA	
*1.	M/s. Walchandnagar Industries Ltd., Construction House, Walchand Hirachand Marg, Ballard Estate, Bombay.	M/s. Foster Wheeler Ltd., St. Cathcrines, Ontario, Canada.	Water Tube Boilers.
		INDIA—CZECHOSLOVAKIA	
2.	M/s. Bharat Heavy Electricals Ltd., Unit: Heavy Power Equipment Plant, Ramachandrapuram, Hyderabad-32.	M/s. Skodaexport, Czechoslovakia.	Synchronous Condensers.
		INDIA—DENMARK	
*3.	M/s. Patel Brothers Services and Engineering Pvt. Ltd., Elphinstone Bldg., 6, Veer Nariman Road, Bombay-400001.	M/s. Aminodan A/S., 9990, Skegen, Denmark.	Industrial Effluent Treatment Plants.
		INDIA—FEDERAL REPUBLIC OF GERMANY	
4.	M/s. Pioneer Electric Furnace Manufacturers, GIDC Industrial Estate, Vithal Udyognagar, Vallabh Vidyanagar-388120, Distt: Kaira (Gujarat).	M/s. Otto Junker GmbH, D 5107, Simmerath. Lammersdors, FRG.	Induction Melting Furnaces.
5.	M/s. Hindustan Steel Ltd., Bhilai Steel Plant, P.O. Bhilai, Distt. Durg (MP).	M/s. Kerabedarf, FRG.	Refractory Bricks.
6.	M/s. Engineers India Ltd., Samachar Bhawan, 4, Parliament Street, New Delhi-110001.	M/s. Oschatz GambH, Damfkerselfabrik, 4300 Essen, Westendorf 10, FRG.	Waste Heat Boilers.
7.	M/s. National Instruments Ltd., 1/1 Raja S.C. Mallick Road, Calcutta.	M/s. ISCO Optische Werke, GmbH, 34 Gottingen, Postfach 208, FRG.	Camera Lenses.
8.	M/s. Utkal Machinery Ltd., Kansbahal 770034, Distt. Sundargarh (Orissa).	M/s. Maschinenfabrik B. Maier KG, D-4800, Bielefeld 14, Postfach 140640, FRG.	Chipping Rotors (Drum Chippers for Pulp & Paper Plants).
9.	M/s. Heavy Machine Building Plant, Heavy Engg. Corpn. Ltd., Dhurwa, Ranchi-4.	M/s. DEMAG, D-4100, Duisburg-13, Postfach-130243, FRG.	Bridge Overloader.
*10.	Mr V.C. Burman, 43-A, Prithviraj Road, New Delhi. (Composite case)	M/s. Wella AG, FRG.	Assorted Hair Cosmetics.
11.	M/s. Westerwork Engineers Pvt. Ltd., 5-D, Vulcan Insurance Bldg., Veer Nariman Road, Churchgate, Bombay.	M/s. Gebruder Wagner, 7000 Stutgart-50 (Bad Cannstatt), Postfach-510229, Hofenerstrasse 118126, FRG.	Travelling Grate Stockers.

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1	2	3	4
		INDIA—FRANCE	
12.	M/s. Asha Industries, 21, Dalal Street, Share Bazar, Bombay. (Composite case)	M/s. S.A. Lebocey Industries, France.	Labotex Device to convert Shut Looms to Shuttleless and We selector Device.
13.	M/s. Bharatiya Agro-Industries Foundation, Uruli-Kanchan, Poona, (Maharashtra). (Composite case)	M/s. IFFA Merieux, Lyon, France.	Foot and Mouth Disease Vaccin
		INDIA—NETHERLANDS	
14.	M/s. Tata-Robins-Fraser Ltd., 11, Station Road, Jamshedpur.	M/s. International Handling, Amsterdam.	1200 TPH capacity Stackers/Reclaim ers for Handling Coal.
		INDIA—ITALY	
*15. (F)	Mr Ajit Bhatnagar/Mr H.P. Bhatnagar, B-15, Green Park, New Delhi.	M/s. Atlier, N3 Rome, Italy.	Precast Element Uniblock Kitchen & Prefabricated Bathrooms.
16.	M/s. Star Textiles Engg. Works Ltd., Dhanraj Mahal, Chhatrapati Shivaji Maharaj Marg, Bombay (Composite case).	M/s. Fratelli Marzoli & Co., Italy.	Lap Formers, Combers, etc.
17.	M/s. I.D. & P.L., N-12, South Extension, Part-I, Ring Road, New Delhi.	M/s. Framafin S.P.A., 20121 Milano, Via Appiani-22, Italy.	Potassium Penicillin, Semisyntheti Penicillin, Tetracycline & Erythro mycin.
18.	M/s. Bharat Heavy Electricals Ltd., 18-20 Kasturba Gandhi Marg, New Delhi.	M/s. Nuovo Pignone, Italy.	Centrifugal Compressors.
19.	M/s. Lohia Machines Pvt. Ltd., 73-A, Fazalganj, Kanpur.	M/s. Meccanotessile, Como, Italy.	Textile Machinery, Automatic Scree Printing Carriage.
		INDIA—JAPAN	
20.	M/s. Dumet Wire (India) Ltd., 11, Tukeganj Main Road, Indore.	M/s. Tokyo Seison Kogyo Co. Ltd., 7-24, Nishi, 4-Chome, Omori Otakukum, Tokyo, Japan.	Dumet Wire.
21.	M/s. Indo-Nippon Chemical Co. Ltd., Maker Bhavan, No. 2, 18 New Marine Lines, Bombay.	M/s. Nissan Chemical Industries Ltd., Kowa-Hitessubashi Bldg., 7-1, 3, Chome Kanda-Nishikicho, Chiyedaku, Tokyo, Japan.	Oxo Alcohols.
22.	M/s. Karnataka State Indl. Investment & Dev. Corpn. Ltd., "Harinivas", 36 Cunningham Road, Bangalore, Karnataka.	M/s. Mitsubishi Rayon Co. No. 8, 2-Chome, Eyobashi Chuo-kum, Tokyo, Japan.	HWM/Polynosic Staple Fibre.
		INDIA—SWITZERLAND	
*23.	M/s. Electrical Switchgears Pvt. Ltd., R5/42, New Raj Nagar, Ghaziabad (UP).	M/s. Weber AG, CH 6020, Emmenbrucke Fabrik Elektrotechnischer Artikel Und Apparate Sedekstrasse 2, Switzerland	Miniature Circuit Breakers 2. 5 Amps to 63 Amps.
24.	Hindustan Brown Boveri Ltd., Brown Boveri House, 264/265 Dr. Annie Besant Road, Bombay.	M/s. Brown Boveri & Co. Ltd., Baden, Switzerland.	Power Line Carrier Communication, Type ETI.
*25.	M/s. E.K. Jhunjhunwala, Vijay Mahal, 12-Walkeshwar Road, Bombay. (Composite case)	M/s. Citexsa, Switzerland.	Digital Watches.
26.	M/s. Hindustan Brown Boveri Ltd., Brown Boveri House, 264/265, Dr. Annie Besant Road., Bombay. (Composite case)	M/s. Brown Boveri & Co. Ltd., Switzerland.	High Tension Air Blast Circuit Breakers.

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1	2	3	4
7.	M/s. Gherzi Eastern Ltd., Neville House, Graham Road, Ballard Estate, Bombay. (Composite case)	M/s. Ceramic Matibo Ltd., Zurich. Switzerland.	Machinery for Ceramic Industry
		INDIA—UK	
8. (F)	Dr. A.K. Mukherjee, Aloka Villa, Aberdare, Glam, UK.	M/s. Pollution Control Ltd., Halesfield 20, Telfore TF74EF, Shropshire, England.	Pollution Control Equipment
29.	M/s. Jessop & Co. Ltd., 63, Netaji Subhas Road, Calcutta.	M/s. Walter Somers (Material handling) Ltd., UK.	Material Handling Equipment viz. Tongs Lifters etc.
30.	M/s. Wanson (India) Ltd., 22 Mahatma Gandhi Marg, Lajpat Nagar IV, New Delhi.	M/s. M.E. Boilers Ltd., M.E. House, FENGATE, Peterborough, PEI 580, England.	Special application Steam Boilers.
31.	M/s. Brentford Eletric (India) Ltd., P-25, Transport Depot Road, Calcutta.	M/s. Brentford Electric Ltd., Manor Royal, Crawley, Sussex, England.	Rectifier Units.
32.	M/s. Triveni Engg. Works Ltd., 'Kailash', 26, Kasturba Gandhi Marg, New Delhi.	M/s. Thomas Broadbent & Sons Ltd., Huddersfield (England).	Semi-automatic, automatic and continuous model centrifugals.
33.	M/s. Western Thomson (India) Ltd., South India House, 99, Armenian St. Madras.	M/s. Western Thomson Controls Ltd., The Aerodrome, Reading RG 5 4SN, Berkshire, England.	Water Thermostats.
34.	M/s. Mining & Allied Machinery Corpn. Ltd., P.O. Durgapur-10, District Burdwan, West Bengal.	M/s. Dowty Mining Equipment, UK.	Hydraulic Chocks.
35.	M/s. The Boots Co. (India) Ltd., 17, Nicol Road, Post Box 680, Bombay.	M/s. The Boots Co. Ltd., Nottingham, England.	Ibuprofen.
36.	M/s. Rane Brake Linings Ltd., Plot No. 3[illegible], Industrial Estate, Madras.	M/s. Trist Draper Ltd., Top-Dog Works, 816-818 Bath Road, Bristol BS4 5LH, England.	Railway Brake Blocks.
37.	M/s. Usha Martin Black (Wire Ropes) Ltd., 14, Princep Street, Calcutta.	M/s. Wire Rope Machinery (1969) Ltd., Bradford Road, Cleckheaton, York, UK.	Stranding and Closing Machines.
38. (F)	M/s. Kandla Formed Mica Pvt. Ltd., (Shri T.R. Pai), 6, Bharat House, 104 Apollo St. Bombay. (KFTZ case)	M/s. J. Gorden Hindley (Holdings) Ltd., UK. and M/s. Chemical & Technical Services, UK.	Mica Powder and Micanite.
39.	M/s. Triveni Engg. Works Ltd., 110[illegible], Ansal Bhavan, 16, K.G. Marg New Delhi. (Composite case)	M/s. Mirrlees Pumps Ltd., UK.	Positive Displacement Pumps etc.
40.	M/s. Shalimar Industries Pvt. Ltd., 25, Ganesh Chandra Avenue, Calcutta.	M/s. Wm. R. Steward & Sons Ltd., Scotland.	Tobacco Hopper Drums, Drum Segments & Feed Sheet Blades.
41.	M/s. Sekher Electronic Industries, 35, Fourth Main Road, Malleswaram, Bangalore.	M/s. Morganite Electroheat Ltd., Batterson Church Road, London SW. 11, UK.	High Temperature Heating Elements.
42. (F)	Mrs. Shanta Nath, 101, Olympus Apartments, Altamount Road, Bombay.	Mr. G.D. Seth, Ascot Sports (Sussex) Ltd., 2, Bellbrock Estate, Uckfield, Sussex, UK.	Sports Cat Guts for Tennis, Squash and Badminton Rackets and other Sports.
		INDIA—USA	
43.	M/s. Elpro International Ltd., Chinchwad Gaon, Pune, 41103.	M/s. General Electric Co., 570, Lexington Avenue, New York, NY 10022 USA.	Lightning Arresters.

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1	2	3	4
44. (F)	Mr Kumar Harve, B.E.M. Tech, No. 10, Jainiketan, 53-16 th Road, Khar, Bombay.	M/s. Pillar Corpn, 7000 W. Walker St., Milwaukee, Wisconsin-53214, USA.	Induction Melting, Heating Furnace etc.
45.	M/s. Hindustan Brown Boveri Ltd., Brown Boveri House, 264/265 Dr. Annie Besant Road, Bombay.	M/s. Carnegie Mellon Institute of Research, Pittsburgh, USA.	Electro Slag Remelting Furnaces.
46.	M/s. SIMCO Meters Ltd., P.B. No. 46, Meter Factory Road, Tiruchirapalli-620020, (Tamil Nadu). (Composite case)	M/s. Yardney Electric Corporation, USA.	High Energy Batteries (Silver Oxide Zinc.)
47.	M/s. Larsen & Toubro Ltd., Gulab Bhavan, 6, Bahadur Shah Zafar Marg, New Delhi. (Composite case)	M/s. Struthers Scientific & International Corporation, USA.	Ultra High Pressure Vessels.
48.	M/s. Titanium Equipment and Anode Manufacturing Co. Ltd., 55, Edward Elliots Road, Madras.	M/s. Titanium Fabrication Corpn., 17, Industrial Road, Fairfield, New Jersey 07006, USA.	Titanium Chemical Equipment (Chemical Machinery).
*49.	Mr P.J. Verenker, MI Kundaikar Nagar, Panaji, Goa.	Mr. Alfred Morena, 277 Corbett Place, North Plainfield, New Jersey, USA.	Electronic Wrist Watch Calculators
50.	M/s. Sehgal Papers Ltd., B-4/4, Safdarjung Enclave, New Delhi.	M/s. Nashua Corpn. 44, Franklin Street, Nashua, New Hampshire 03060, USA.	Carbonless Paper.
51.	M/s. Khusiram Tarachand Pvt. Ltd., Broach Street, Dana Bunder, Bombay. (KFTZ case)	M/s. Kershaw International Inc., USA.	Track Maintenance Machinery an[d] Equipment.
52. (F)	M/s. Syn-Mar, 80, Marine Drive, Bombay-2. (KFTZ case)	M/s. Dot Industries Inc., USA.	Synthetic Marble.
53.	M/s. New Central Jute Mills Co. Ltd., Time House, 7, Bahadur Shah Zafar Marg, New Delhi.	M/s. Benfield Corporation, 650 Spruce Lane, Berwin, Pennsylvania 19312, USA.	Carbon Dioxide Absorption and Re-covery System.
54.	M/s. Snowtemp Engineering Co. Ltd., (Formerly York India Ltd.,), 22.5 KM Main Mathura Road, Faridabad (Haryana).	M/s. Borg-Warner Corpn., 200, South Michigan Avenue, Chicago, Illinois, 60604, USA.	Rail/Road Refrigeration Equipme[nt] and Trailor/Container Refrigeratio[n] Equipment.
		INDIA—USSR	
55.	M/s. Bharat Heavy Electricals Ltd., 10-20, Kasturba Gandhi Marg, New Delhi.	M/s. Prommashexport, Moscow (USSR).	Electrical Machines.

ABSTRACT

1. Approvals involving financial participation.	6
2. Approvals involving only technical collaboration.	49
Total	55*

*Including 10 composite cases and 3 KFTZ cases.

EASTERN ECONOMIST

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Trade Winds	TW
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